

#141

AD

1  
TECHNICAL REPORT

1  
76-20-FEL

**PRODUCTION GUIDES FOR MEAT AND VEGETABLE  
ENTREES AND DESSERTS DEVELOPED FOR USE IN  
THE FROZEN FOIL PACK FEEDING SYSTEM  
F. E. WARREN AIR FORCE BASE**

February 1976

Approved for public release;  
distribution unlimited.

**UNITED STATES ARMY  
NATICK RESEARCH and DEVELOPMENT COMMAND  
NATICK, MASSACHUSETTS 01760**



**Food Engineering Laboratory  
FEL-52**

Approved for public release; distribution unlimited.

Citation of trade names in this report does not constitute an official indorsement or approval of the use of such items.

Destroy this report when no longer needed. Do not return it to the originator.

Approved for public release  
Distribution is unlimited

AD \_\_\_\_\_

PRODUCTION GUIDES FOR MEAT AND VEGETABLE ENTREES  
AND DESSERTS DEVELOPED FOR USE IN THE FROZEN FOIL  
PACK FEEDING SYSTEM F.E. WARREN AIR FORCE BASE

TECHNICAL REPORT

by

Abdul R. Rahman  
Hilton Schlup  
Richard Helmer  
Glenn Schafer  
Nancy Kelley

February 1976

Project reference:  
1Y762724AH99

Series: FEL-52

Food Technology Division  
Food Engineering Laboratory  
US Army Natick Research and Development Command  
Natick, Massachusetts 01760

#### ABSTRACT

Production guides are given for meat and vegetable entrees, as well as desserts. The guides are designed for use in the Frozen Foil Pack Meal Feeding System at F.E. Warren Air Force Base. Procedures are described for the preparation of 100 portions of each of the designated items. Changes in formulation and evaluation of finished products are the result of extensive work at NRDC. The objective was to make it possible to use institutional type facilities. It is recommended that production procedures, especially critical control points as well as procedures, be followed closely in order to obtain a safe and high quality product.

This report contains production guides for meat and vegetable entrees, as well as desserts. The procedures were developed based on using a frozen system for distribution of prepared foods to missile sites.

Accession For  
GRA&I  
T-12  
Approved  
Classification  
Special  
A

## TABLE OF CONTENTS

	<u>Page</u>
Foreword	1
Introduction	3
Production Guides	4-93
Meat Entrees	4
Vegetable Entrees	60
Desserts	78
Raw Material Specification Listing	94-99
Meat	94
Dairy, Egg, Condiment	96
Vegetables	98
Production Guide Index	100-103
Meat Entree	100
Vegetable Entree	102
Desserts	103

## INTRODUCTION

The purpose of this report is to provide documents for food preparation procedures for planned Central Food Preparation Facilities. The basic information was taken from the Armed Forces Recipe Service. However, significant changes were made in each item to enable it to withstand freezing without adverse effect on its texture. Problems relative to freeze-thaw stability and overall quality were encountered. Each frozen item was evaluated by technical panels to attain a high quality product.

The production guides are based upon a batch size of 100 portions so that they can be scaled up to the required batch sizes with ease. Critical control points during processing were reported as applicable. In addition, reconstitution procedures of the frozen meals on site were indicated.

References were made to Military as well as Federal specifications for the applicable products. This will help in the assurance of obtaining high raw materials for use in the production of the finished products.

The production guides given herein can be used in any cook-freeze system. However, it should be recognized that conditions and equipment at a given installation may necessitate minor changes.

BAKED BEEF WITH NOODLESL-17Yield: 100 PortionsEach Portion: 8 ounces

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Beef, boneless, diced	30.00	13,620	1. Brown beef in steam kettle, mixing slowly to brown all sides of dices. Drain liquid and discard. Add 1/2 the required water; cover; simmer for approximately 1 hour.
Noodles, dry	4.00	1,816	2. Approximately 1/2 hour prior to completion of beef cook, start cooking noodles in a separate steam kettle. Use 100 grams salt per 6 gallons water and cook until slightly undercooked.*1 After cooking, rinse well. Set aside for step 4.
Flour, rice	1.25	568	3. Mix starch and flour with the remaining water to make a slurry and add to steam kettle. Combine remaining seasonings, mix well and heat until mixture thickens (cook 15 minutes).
Starch, Col-Flo 67	1.25	568	4. Add noodles from step 2; mix well and adjust volume to 7.8 gallons. Heat to 180°F.*2
Soup and gravy base, beef	0.88	400	5. Weigh 8 ounces of product into each foil container.*3
Salt, table	0.25	114	6. Cover, mark, and freeze.
Pepper, black	0.02	9	
Catsup, tomato	1.00	454	
Water, tap	27.00	12,260	
<u>Totals</u>	<u>65.65</u>	<u>28,174</u>	

NOTES:

1. Reconstitute covered in 325°F oven to an internal temperature of 160°F (35-40 minutes).

2. Freeze-thaw stable starch may be used in lieu of Rice flour.

- \*Critical Check Points:
1. Preparation methods
  2. Product temperature and volume
  3. Correct fill



BARBECUED BEEF CUBESL-18Yield: 100 PortionsEach Portion: 6 ounces

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Beef, boneless, diced, 1 inch by 1½ inch pieces	30.00	13,620	1. Dredge beef in seasoned flour; shake off excess.
Flour, rice	1.00	454	2. Brown beef cubes in hot shortening in steam kettle.
Pepper, black	0.01	5	3. After browning, drain liquid and discard.
Salt, table	0.13	59	4. Add one half of water to beef, cover and simmer for 55 minutes.*1
Shortening, melted	2.00	908	5. Combine all dry seasoning, starch, tomato paste Worcestershire sauce, hot sauce, and remaining water. Mix well and simmer 25 minutes or until meat is tender.
Water, tap	15.00	6,810	6. Add vinegar, mix well, bring volume back to 5.25 gallons with hot water. Heat to 180°F.*2
Onions, dehydrated, slices	0.50	227	7. Weigh 6 ounces to each foil container.*3
Chili powder	0.14	64	8. Cover, mark, and freeze.
Mustard, ground, dry	0.08	36	
Sugar, light brown	0.26	118	
Salt, table	0.13	59	
Flour, rice	0.60	272	
Tomato paste (26% solids)	3.80	1,725	
Worcestershire sauce	0.26	118	
Hot sauce, Tabasco	0.06	28	
Vinegar, cider (4%)	0.76	345	
<u>Total</u>	<u>54.73</u>	<u>24,848</u>	

NOTES:

1. Reconstitute in 325°F oven to an internal temperature of 160°F (35-40 minutes).
2. Four pounds of fresh onions may be substituted for dehydrated onions in step 5.
3. One gallon weighs 8 pounds; each cup weighs 8 ounces.
4. Freeze-thaw stable starch may be used in lieu of Rice flour.

\*Critical Check Points: 1. Tenderness of meat  
2. Product temperature and volume  
3. Correct fill

### BEEF POT PIE

Yield: 100 Portions

Each Portion: 8 ounces

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Beef, boneless, diced	30.00	13,620	1. Brown beef in steam kettle in its own fat, (stirring slowly). Drain and discard fat. 2. Add 1/2 the required water to the browned beef. Cover. Simmer for approximately 1 hour.*1
Flour, rice	1.10	499	3. Combine remaining water with starch and flour to make a slurry.
Pepper, black	0.03	14	4. Add slurry, salt, sugar, pepper, and onions to steam kettle. (Mixer on slow speed).
Sugar, white granulated	0.20	91	5. Heat to thicken starch (cook for 5 min @ 200°F).
Salt, table	0.66	300	6. Add carrots and tomato juice. Cook carrots for about 10 minutes then add potatoes.*1
Onions, dehydrated, chopped	0.38	173	7. Cook potatoes until slightly undercooked.*1
Juice, tomato, canned	12.26	5,566	8. Adjust volume to 7.5 gallons. Heat to 180°F.*2
Carrots, fresh, sliced 1/2"	8.00	3,632	9. Weigh 8 oz per foil container.*3
Potatoes, 1 1/2 in. pieces	12.00	5,448	10. Cover with cooked dough strip.
Water, tap	22.00	9,990	11. Cover, label, and freeze.
<u>Total</u>	<u>86.63</u>	<u>39,333</u>	

#### NOTES:

1. Reheat covered in oven at 350°F until internal temperature reaches 160°F. Remove cover for 10 minutes or until topping is browned.
2. Freeze-thaw stable starch may be used in lieu of Rice Flour.

\*Critical Control Points: 1. Preparation methods  
2. Product temperature and volume  
3. Correct fill

BEEF POT PIE TOPPING

Ingredients	Pounds	Grams	Procedure
Flour, wheat, pastry sifted	2.33	1,058	1. Mix dry ingredients together.
Shortening	0.78	354	2. Blend shortening into dry ingredients until mixture resembles coarse crumbs. Do not over mix.
Water, cold	1.55	704	3. Gradually add cold water and mix only enough to form a soft dough.
Milk, non-fat, dry	.15	68	4. Place dough on a lightly floured board, kneading lightly about 1 minute or until dough is smooth.
Baking Powder	.10	45	5. Roll out to a uniform thickness of 1/4 inch.*1
Salt	.05	23	6. Cut in 1 inch strips 6 inches long.*1
Sugar	.05	23	7. Bake for 15 minutes in a preheated 425° F oven.*1
			8. When baked, place one strip over prepared pot pie.
Total	5.01	2,275	

BEEF STEWL-22Yield: 100 PortionsEach Portion: 10 ounces

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Beef, boneless, diced 1 inch by 1½ inch pieces.	30.00	13,620	1. Dredge diced beef in seasoned flour, shake off excess. Add to steam kettle.
Flour, rice	0.50	227	
Salt, table	0.35	159	
Pepper, black	0.02	10	
Sugar, white, granulated	0.20	90	
Water, tap	25.00	11,350	2. Add half of water to beef and simmer for 55 minutes, covered.*1
Salt, table	0.35	159	3. Combine remaining water with salt, thyme, bay leaves and starch. Mix well and add to simmered beef.
Thyme, ground	0.01	5	
Bay leaves, ground, fine	0.01	5	
Flour, rice	0.44	200	4. Add all vegetables to beef and seasonings, mix well and simmer until vegetables are slightly undercooked (15 mins.)
Carrots, fresh, ½ inch rings	8.00	3,632	
Celery, fresh, 1 in. pieces	4.00	1,816	
Onions, dehydrated, sliced	0.40	182	
Potatoes, fresh, white, 1 to 1½ inch pieces	8.00	3,632	
Tomatoes, whole, canned	7.00	3,178	5. Adjust volume to 8 gallons with hot water. Heat to 180°F.*2
			6. Weigh 10 ounces per foil container.*3
			7. Cover, mark, and freeze.
<u>Total</u>	<u>84.28</u>	<u>38,265</u>	

NOTES:

1. Reconstitute in a 325°F oven to an internal temperature of 160°F (35-40 minutes).
2. Three pounds of fresh onions may be substituted in step 4 for dehydrated onions.
3. Product weight 7.5 pounds per gallon or 7.5 ounces per cup.
4. Freeze-thaw stable starch may be used in lieu of Rice Flour.

- \*Critical Control Points:
1. Tenderness of meat.
  2. Temperature of product and volume.
  3. Correct weights.

BAKED LASAGNAL-25Yield: 100 PortionsEach Portion: 11.00 ouncesTemperature: 325°F Oven

Ingredients	Pounds	Grams	Procedure
<u>Sauce</u>			
Beef, boneless, ground	10.00	4,540	1. Add oil to steam kettle, spread evenly on inside to prevent meat sticking. 2. Add ground beef and heat until meat loses red color. Drain excess fat and discard. Hold for Step 3.
Oil or Shortening	0.20	91	
Tomato paste, canned	9.00	4,086	3. Combine all seasoning ingredients together in steam kettle containing ground beef, mix thoroughly. 4. Heat to a boil and simmer 30 minutes with occasional stirring. 5. Bring volume back to 4.75 gallons with hot water. Hold for panning @ 180°F.*1
Tomatoes, canned, crushed	12.00	5,448	
Water, tap	10.00	4,540	
Bay leaves, ground fine	0.01	5	
Oregano, ground	0.04	18	
Pepper, cayenne	0.01	5	
Salt, table	0.25	114	
Sugar, white	0.25	114	
Pepper, black	0.01	5	
Flour, rice	0.25	114	
Onions, dehydrated, sliced	0.50	227	
Garlic powder	0.01	5	
Thyme, ground	0.03	14	
<u>Filling</u>			
Eggs, whole, beaten	2.75	1,249	6. Combine all filling ingredients, mix thoroughly and set aside for panning. Hold under refrigeration if not panned within 30 minutes.*2
Cheese, cottage, drained	6.50	2,951	
Cheese, grated parmesan	0.75	341	
Parsley, dehydrated, flakes	0.02	9	
<u>Noodles</u>			
Noodles, lasagna, whole	4.50	2,043	7. Add 10 gallons of water to steam kettle, mix in salt, oil, and heat to a boil.
Salt, table	0.31	141	
Oil, vegetable	0.25	114	

BAKED LASAGNAL-25

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
			8. Add noodles and cook with constant stirring until tender (18-20 minutes). *2
			9. Rinse thoroughly with cold water, drain and set aside for panning.
Cheese, mozzarella, sliced	6.25	2,838	10. Set cheeses aside for panning.
Cheese, grated, parmesan	1.60	726	11. Pan according to instructions. *3
			12. Heat foil containers of lasagna covered in a 325°F oven to an internal temperature of 160°F. *1
			13. Mark and freeze.
<u>Total</u>	<u>65.49</u>	<u>29,738</u>	

\*Critical Control Points: 1. Temperature of product and volume.  
2. Preparation methods.  
3. Assembly instructions followed.

## BAKED LASAGNA

L-25

### Panning Instructions

Layer 1 = Sauce, 2.00 ounces, spread evenly over bottom of foil pan.  
Layer 2 = Noodles, 0.75 ounces, spread evenly over sauce.  
Layer 3 = Filling, 0.75 ounces, spread evenly over noodles.  
Layer 4 = Mozzarella cheese, 0.50 ounces, spread evenly over filling.  
Layer 5 = Sauce, 2.00 ounces, spread evenly over cheese.  
Layer 6 = Noodles, 0.75 ounces, spread evenly over sauce.  
Layer 7 = Filling, 0.75 ounces, spread evenly over noodles.  
Layer 8 = Mozzarella cheese, 0.50 ounces, spread evenly over filling.  
Layer 9 = Noodles, 0.75 ounces, spread evenly over cheese.  
Layer 10 = Sauce, 2.00 ounces, spread evenly over noodles.  
Layer 11 = Parmesan cheese, 0.25 ounces, spread evenly over sauce.

### NOTES:

1. Four and one quarter pounds of fresh onions may be used to replace dehydrated onions in Step 3.
2. One and one-half ounces of fresh parsely leaves may be used to replace dehydrated parsley in Step 6.
3. Reconstitute in 325°F oven to an internal temperature of 160°F (35-40 minutes).
4. Sauce weighs 9.4 pounds per gallon.
5. Each pound of lasagna noodles cooks to 3.1 pounds.
6. Five 36 oz. cans of canned tomato juice concentrated may be substituted for tomato paste in Step 3.
7. Freeze-thaw stable starch may be used in lieu of rice flour.

BARBECUED BEEF PATTIESL-31Yield: 100 PortionsEach Portion: 2 patties, 4 oz sauce

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Beef patties, frozen	45.00	20,430	1. Temper frozen patties to about 30°F before using. 2. Place patties on sheet pans 1 layer deep. Bake in 350°F oven until internal temperature reaches 160°F.*1 3. Place 2 patties per foil container.
<u>Sauce</u>			
Vinegar, cider	6.00	2,724	4. In a suitable size steam kettle, combine all ingredients. Bring to a boil then simmer until sauce is well blended.
Tomato paste	5.75	2,610	
Water	11.00	4,994	5. Adjust volume to 3.25 gallons, blending well. Heat to 180°F.*2
Sugar, granulated	4.00	1,816	
Salt	0.62	281	6. Place 4 oz sauce over prepanned meat.*3
Mustard, prepared	1.75	794	
Pepper, cayenne	0.02	9	7. Cover, mark, and freeze.
Onions, dehydrated, chopped	0.20	91	
Pepper, sweet, chopped	1.00	454	
Celery, fresh, chopped	1.00	454	
Cloves, ground	0.03	14	
Allspice, ground	0.03	14	
Chili powder	0.20	91	
Total	76.60	34,776	

NOTES:

1. Reheat covered in oven at 325°F until product temperature reaches 160°F.

- \*Critical Control Points:
1. Preparation methods.
  2. Product temperatures and volume.
  3. Proper filling weights.



CHILI CON CARNE WITH BEANSL-28Yield: 100 PortionsEach Portion: 9 ounces

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Beef, boneless, ground	19.20	8,717	1. Brown beef in its own fat in steam kettle, until it loses red color. Drain and skim off fat, discard.
Tomato paste, canned	1.60	726	2. Combine tomato products and hold for Step 4.
Tomatoes, canned, crushed	5.20	2,361	
Soup and gravy base, beef flavored	0.60	272	3. Combine seasonings, water and starch together with cooked beef, mix thoroughly, heat to 200°F and simmer for 10 minutes with constant stirring (do not boil).
Chili powder, ground, dark	0.52	236	
Salt, table	0.16	73	
Garlic powder	0.01	5	
Pepper, cayenne	0.01	5	
Paprika, ground	0.08	36	4. Add tomato products, mix and heat to 180°F., simmer 5 minutes.
Onion powder	0.05	23	
Monosodium Glutamate	0.01	5	
Cumin, ground	0.01	5	
Water, cold	19.50	8,853	
Flour, rice	0.20	91	
Beans, cooked, red kidney canned, drained	20.00	9,080	5. Add beans, mix thoroughly. 6. Bring volume up to 6.75 gallons with hot water. Heat to 180°F.*1 7. Place 9 ounces of chili with beans in each foil container.*2 8. Cover, mark, and freeze.
<u>Total</u>	<u>67.15</u>	<u>30,488</u>	

NOTES:

1. Reconstitute covered in 325°F oven to an internal temperature of 160°F (35-40 minutes).
2. Liquid from beans may be substituted for part of water in Step 3.
3. One gallon of chili con carne with beans weighs 9.2 pounds.
4. Average weight of drained liquid in Step 1 is 5.0 pounds.
5. Freeze-thaw stable starch may be used in lieu of rice flour.

\*Critical Control Points: 1. Product temperature and volume.  
2. Proper fill.

CHILI CON CARNE WITHOUT BEANSL-28Yield: 100 PortionsEach Portion: 8 ounces

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Beef, boneless, ground	29.50	13,393	1. Brown beef in its own fat in steam kettle, until it loses pink color. Drain or skim off excess fat and discard.
Tomato paste, canned	2.15	976	2. Combine tomato products and hold for Step 4.
Tomatoes, canned, crushed	7.00	3,178	
Soup and gravy base, beef flavored	0.80	363	3. Combine all seasonings, water, and starch with cooked beef. Mix thoroughly, heat to 200°F and simmer for 10 minutes with constant stirring (do not boil).
Chili powder, ground, dark	0.69	313	4. Add tomato products, mix and heat to 180°F. Simmer 5 minutes.
Salt, table	0.20	91	5. Bring volume up to 6.25 gallons with hot water.*1
Garlic powder	0.01	5	6. Place 8 ounces of chili in each foil container.*2
Pepper, red cayenne	0.01	5	7. Cover, mark, and freeze.
Paprika, ground	0.14	64	
Onion powder	0.08	36	
Monosodium glutamate	0.01	5	
Cumin, ground	0.01	5	
Flour, rice	0.26	118	
Water, cold, tap	21.00	9,534	
<u>Total</u>	<u>61.86</u>	<u>28,086</u>	

NOTES:

1. Reconstitute covered in 325°F oven to an internal temperature of 160°F (35-40 minutes).
  2. One gallon of chili weighs 8.75 pounds.
  3. Average weight of drained liquid in Step 1 is 6 pounds.
  4. Freeze-thaw stable starch may be used in lieu of rice flour.
- \*Critical Control Points: 1. Product temperature and volume.  
2. Proper fill.

CHILI MACARONIL-28Yield: 100 PortionsEach Portion: 1½ cup

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Macaroni, dry	6.00	2,724	1. Cook the macaroni in 6 gallons of boiling salted water for 10-15 minutes or until done.*1 Rinse with cold water and drain. Hold for Step 4.
Salt, table	0.20	91	
Beef, boneless, ground	24.00	10,896	
Garlic, powder	0.01	5	2. Brown beef in appropriate steam kettle. After browning, drain liquid and discard.
Onions, dehydrated, chopped	0.25	114	
Monosodium glutamate	0.02	9	3. Add seasonings and tomatoes to meat. Stir and simmer 15-20 minutes.
Paprika	0.13	59	
Pepper, cayenne	.01	5	4. Add macaroni, adjust volume to 8 gallons. Blend and heat to 180°F.*2
Salt, table	0.63	286	
Chili powder	0.37	168	5. Place 10 oz product per foil container.*3
Bay leaves, ground fine	0.01	5	
Tomato paste	3.34	1,516	6. Cover, mark, and freeze.
Tomatoes, canned	12.21	5,543	
Total	47.18	21,421	

NOTES:

1. Reconstitute in 325°F oven, covered to an internal temperature of 160°F (35-40 minutes).

- \*Critical Control Points:
1. Preparation methods.
  2. Product temperature and volume.
  3. Proper filling weight.

# EGG PLANT PARMESAN

Yield: 100 Portions

Each Portion: 12 ounces

Ingredients	Pounds	Grams	Procedure
Eggplant, fresh, whole	22.50	10,215	1. Peel eggplant and cut in $\frac{1}{4}$ inch slices (across grain). Hold for Step 3.
Milk, nonfat, dry	0.19	86	2. Reconstitute milk, add eggs, mix thoroughly. Do not hold unrefrigerated over 30 minutes before using.*1
Water, warm	1.88	854	3. Dip eggplant in milk and egg mixture, drain well and hold for Step 5.
Eggs, fresh, whole, beaten	2.50	1,135	4. Mix flour, salt, and bread crumbs thoroughly.
Flour, wheat, general purpose	2.50	1,135	5. Dredge eggplant in seasoned flour. Shake off excess.
Salt, table	0.63	286	6. Deep fat fry in 360°F oil until brown (1 minute). Set aside for panning.*2
Bread crumbs, dry	3.75	1,703	
<u>Sauce</u>			
Beef, boneless, ground	10.00	4,540	7. Add oil to steam kettle, spread evenly on inside to prevent meat from sticking.
Oil or shortening	0.20	91	8. Add ground beef and heat until meat loses red color. Drain excess fat and discard. Hold for Step 9.
Tomato paste, canned	9.00	4,086	9. Combine all seasoning ingredients together in steam kettle containing ground beef and mix thoroughly.
Tomatoes, canned, crushed	12.00	5,448	10. Heat to a boil and simmer 30 minutes with occasional stirring.
Water, tap	10.00	4,540	11. Bring volume back to 4.75 gallons with hot water. Hold for panning.*3
Bay leaves, ground fine	0.01	5	
Oregano, ground	0.04	18	
Pepper, cayenne	0.01	5	
Salt, table	0.25	114	
Sugar, white granulated	0.25	114	
Pepper, black	0.01	5	
Flour, rice	0.25	114	
Onions, dehydrated, sliced	0.50	227	
Garlic powder	0.01	5	
Thyme, ground	0.03	14	

### EGGPLANT PARMESAN

Ingredients	Pounds	Grams	Procedure
Cheese, mozzarella, sliced thin	12.50	5,675	12. Set cheese aside for panning.
Cheese, grated, Parmesan	6.25	2,838	13. Pan according to instructions.*4 14. Heat foil containers of eggplant covered in 325°F oven to an internal temperature of 160°F.
Total	95.26	43,253	15. Mark and freeze.

### PANNING INSTRUCTIONS

- Layer 1. Sauce 3.00 ounces. Spread evenly over bottom of foil container.  
Layer 2. Eggplant 3.00 ounces. Place evenly on sauce.  
Layer 3. Parmesan Cheese 0.50 ounces. Spread evenly over eggplant.  
Layer 4. Mozzarella Cheese 1.00 ounce. Place evenly on cheese.  
Layer 5. Sauce 3.00 ounces. Spread evenly over cheese.  
Layer 6. Mozzarella Cheese 1.00 ounces. Place evenly on sauce.  
Layer 7. Parmesan Cheese 0.50 ounces. Sprinkle evenly over cheese.

### NOTES:

1. Each foil pack weighs 12.00 ounces.
  2. 4.25 pounds of fresh onions may be substituted for dehydrated onions in Sept 9.
  3. Reconstitute in 325°F oven to an internal temperature of 160°F (35-40 minutes).
  4. Eggplant should stand at room temperature 10 minutes before depanning.
  5. If sliced eggplant is not used immediately, soak in water to keep from browning.
  6. Freeze-thaw stable starch may be used in lieu of rice flour.
- \*Critical Control Points:
1. Check milk and egg mixture for temperature.
  2. Check deep frying oil for temperature and stability.
  3. Sauce temperature and volume.
  4. Product filling requirements.

MEAT LOAF AND BROWN GRAVYL-35Yield: 100 PortionsEach Portion: 6 ounces meat, 4 ounces gravyTemperature: 325°F oven

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Onions, dehydrated chopped	0.18	82	1. Rehydrate onions in excess water 10 minutes, drain.
Peppers, sweet, fresh green, chopped, 1/8 in.	0.50	227	2. Saute onions, peppers, and celery in shortening until lightly browned.
Celery, fresh, finely chopped	1.00	454	Cool to 60°F and save for Step 3.
Shortening	0.50	227	3. Combine sauteed vegetables, bread crumbs, beef, eggs, seasonings and water in mechanical mixer and mix lightly (just enough to complete mixing).
Beef, boneless, ground	30.00	13,620	4. Form into 2 pound 8 ounce loaves in greased loaf pans (8½ inches by 4½ inches by 2-3/4 inches). Do not allow uncooked mixture to remain at room temperature over 30 minutes.*1
Eggs, whole, beaten	1.30	590	5. Heat uncovered in 325°F oven to an internal temperature of 165°F. (1 hour 20 minutes). Place loaves in freezer or refrigerator to bring temperature down to 60°F.
Salt, table	0.40	182	6. Slice 9/16 inches thick (3 ounce slices). *2
Pepper, black	0.03	14	7. Place 2 slices in each foil container and hold for Step 10.
Bread crumbs, dry	4.00	1,816	
Water, tap	6.00	2,724	
Shortening	0.50	227	
<u>Gravy</u>			
Meat drippings and clear fat or shortening	1.50	681	8. Add fat to steam kettle, heat to melt and sprinkle flour evenly over fat. Mix thoroughly and cook 10 min.
Flour, wheat, general purpose	1.00	454	

### MEAT LOAF AND BROWN GRAVY

Ingredients	Pounds	Grams	Procedure
Flour, rice	0.50	227	9. Combine starch, stock or water and remaining ingredients together, heat to 180°F and add slowly to fat-flour mixture. Mix thoroughly and cook for 20 min. Bring volume back to 3 gal. with hot water.*3 10. Pour 4 ounces of gravy over meat in foil container.*4 11. Cover, mark, and freeze.
Stock or cold water	23.50	10,669	
Pepper, black	0.01	5	
Caramel coloring liquid	0.01	5	
Soup and gravy base, beef flavor	0.40	182	
Total	71.33	32,386	

#### NOTES:

1. 1.26 pounds of fresh onions may be used as a substitute in Step 1 for dehydrated onions.
  2. 1.50 ounces of dehydrated green peppers may be used as a substitute in Step 2 for fresh peppers.
  3. Reconstitute foil containers covered in 325°F oven to 160°F internal temperature (35-40 minutes).
  4. Bread, dry, broken may be substituted for bread crumbs as follows: Place formula water from Step 3 in broken bread and whip until large pieces are unidentifiable. Press out and discard excess water.
  5. Vegetables in Step 1 and 2 may be ground ( $\frac{1}{4}$  inch plate) rather than chopped.
  6. Freeze-thaw stable starch may be used in lieu of rice flour.
  7. Canned celery may be substituted for fresh celery.
- \*Critical Control Points:
1. Check time and temperature of uncooked mixture.
  2. Check weight and size of cooked meat loaf slices.
  3. Check temperature and volume of gravy.
  4. Check proper filling of components.

SALISBURY STEAK WITH BROWN GRAVYL-37Yield: 100 PortionsEach Portion: 1 steak

Ingredients	Pounds	Grams	Procedure
Milk, nonfat dry	0.41	186	1. Reconstitute milk and blend crumbs with milk.
Water, warm	4.31	1,957	
Bread crumbs	1.44	654	
Beef, boneless, ground	30.00	13,620	2. Rehydrate onions in excess water, drain.
Onions, dehydrated	0.37	168	
Eggs, whole	1.00	454	3. Combine mixture with beef and remaining ingredients.
Pepper, black	0.02	9	
Salt, table	0.37	168	Mix on low speed lightly, but thoroughly.
Worcestershire sauce	0.19	86	
			4. Shape into oval patties 1" thick weighing 6 oz on patty making machine.*1
			5. Place patties on lightly greased pans or on parchment paper. Note: At no time shall the uncooked patty temperature be over 50°F.*2 Bake 1 hour at 325°F to at least 165°F internal temperature.*3
<u>Gravy</u>			
Flour, wheat, general purpose	0.44	200	6. Mix all ingredients except water together until blended. Place in steam kettle.
Flour, rice	0.44	200	
Water, tap	23.15	10,510	7. Add water slowly to the ingredients while stirring vigorously.
Soup & gravy base, beef	0.94	427	
Garlic powder	0.01	5	8. Turn on steam and heat for 5 minutes @ 200°F. Adjust volume to 3.5 gallons; blend well.*4
Pepper, black	0.01	5	
			9. Place one steak and 4 oz gravy per foil container.*5
			10. Cover, mark, & freeze.
Total	63.10	28,649	

NOTES:

1. Reheat covered at 350°F in oven until product temperature reaches 160°F.
2. Freeze-thaw stable starch may be used in lieu of rice flour.

- \*Critical Control Points:
1. Check patty size.
  2. Check uncooked patty temperature.
  3. Check cooked patty temperature.
  4. Check gravy temperature and volume.
  5. Check filling weights.



SALISBURY STEAK WITH TOMATO SAUCEL-37Yield: 100 PortionsEach Portion: 1 steak, 4 oz gravy

Ingredients	Pounds	Grams	Procedure
Nonfat dry milk	0.41	184	1. Reconstitute milk with water provided.
Water, tap	3.75	1,703	2. Add milk to bread crumbs, let stand 5 minutes.
Bread crumbs	1.50	681	
Beef, boneless, ground 1/8 inch	30.00	13,620	3. Combine bread mixture with beef and remaining ingredients; mix lightly but thoroughly.
Onions, dehydrated, chopped	0.38	170	4. Shape into oval portions one inch thick weighing six ounces on patty forming machine.*1 Note: At no time shall the uncooked patty temperature be over 50°F.*2
Egg, whole, beaten	1.00	454	5. Place on lightly greased pans. Bake 1 hour at 325°F to at least 165°F.*3
Pepper, black	0.02	9	
Salt, table	0.38	170	
Worcestershire sauce	0.19	86	
<u>Gravy</u>			
Onions, dehydrated	0.19	86	6. Combine ingredients to a slurry.
Shortening	1.50	681	7. Add seasonings to slurry and put in steam kettle.
Flour, wheat, general purpose	1.00	454	8. Heat for 5 minutes at 200°F.
Flour, rice	0.50	227	9. Adjust volume to 3.5 gallons.*4
Water, tap	21.35	9,693	10. Place one steak per foil container. Pour 4 oz gravy over prepared steak.*5
Tomato paste	2.15	976	11. Cover, mark, and freeze.
Pepper, black	0.01	5	
Soup and gravy base, beef	0.50	227	
Total	64.83	29,426	

NOTE:

1. Reheat at 350°F in oven until product temperature reaches no less than 160°F internal.

2. Freeze-thaw stable starch may be used in lieu of rice flour.

- \*Critical Control Points:
1. Check patty size.
  2. Check uncooked patty temperature.
  3. Check cooked patty temperature.
  4. Check gravy temperature and volume.
  5. Check filling weights.

SPAGHETTI WITH MEAT BALLSL-39Yield: 100 PortionsEach Portion: 6 meatballs, 8 ounces sauce  
8 ounces spaghetti

Ingredients	Pounds	Grams	Procedure
Garlic powder	0.01	5	1. Combine all ingredients in steam kettle except tomato paste. Heat to 180°F., stirring constantly. 2. Simmer for 30 minutes with occasional stirring. Add tomato paste and mix well. 3. Bring volume to 5.5 gallons with hot water. Cover and hold for step 8.*1
Onions, dehydrated, sliced	0.40	182	
Bay leaves, ground fine	0.01	5	
Oregano, ground	0.04	18	
Pepper, cayenne	0.01	5	
Tomatoes, canned, crushed	20.00	9,080	
Tomato paste	7.22	3,278	
Salt, table	0.70	318	
Sugar, white, granulated	2.74	1,244	
Thyme, dehydrated	0.04	18	
Water, tap	19.00	8,626	
<u>Meatballs</u>			
Onions, dehydrated, sliced	0.61	277	4. Mix ingredients for meatballs in a mixer, thoroughly but lightly. Note: At no time shall temperature of uncooked meatballs be over 50°F.*2 5. Form into 1 ounce meatballs. 6. Bake in 325°F oven uncovered in sheet pans to 165°F internal temperature (30 minutes).*3 7. Place 6 meatballs in each foil container.*4 8. Pour 8 ounces sauce over panned meatballs.*4 9. Cover, mark, and freeze.
Water, tap	2.26	1,026	
Beef, boneless, ground	29.97	13,606	
Bread crumbs, dry	2.32	1,053	
Nonfat dry milk	2.32	1,053	
Eggs, whole, beaten	1.31	595	
Pepper, black	0.01	5	
Salt, table	0.52	236	
Spaghetti, dry	12.93	5,870	10. Add salt to 6 gallons water, heat to a boil. 11. Stir in spaghetti and oil. Reheat to boiling. Cook about 12 minutes or until slightly undercooked.*5 12. Rinse spaghetti thoroughly with water to wash off excess starch. 13. Weigh 8 ounces of spaghetti in each foil container.*4 14. Cover, mark, and freeze.
Salt, table	0.31	141	
Oil, vegetable	0.41	186	
Total	103.14	46,827	

SPAGHETTI WITH MEATBALLS

L-39

NOTES:

1. Reconstitute meatballs and sauce in 325°F oven to an internal temperature of 160°F (35-40 minutes).
2. Spaghetti: can be reconstituted in boiling water (1 min.).
3. Three pounds of fresh onions may be substituted for dehydrated onions in Step 1.

- \*Critical Control Points:
1. Check volume and temperature of sauce.
  2. Check temperature of uncooked meatballs.
  3. Check temperature of cooked meatballs.
  4. Check filling of components.
  5. Check doneness of spaghetti.

SPAGHETTI WITH MEAT SAUCEL-38Yield: 100 PortionsEach Portion: 1 cup spaghetti, 10 ozs. sauce

Ingredients	Pounds	Grams	Procedure
Spaghetti, dry	12.26	5,566	1. Add salt to 6 gallons
Salt, table	0.31	141	of water; heat to boiling.
Oil, vegetable	0.50	227	2. Stir in spaghetti and
			vegetable oil. Cook about
			15 minutes or until
			slightly undercooked.*1
			3. Rinse the spaghetti
			thoroughly with water to
			wash off excess starch.
			4. Weigh 8 oz. of cooked
			spaghetti in foil container.*2
			5. Cover, mark, and freeze.
<u>Sauce</u>			
Beef, boneless, ground	24.85	11,282	6. Place ground beef in
Tomato paste	11.50	5,221	steam kettle, cook until
Tomatoes, canned, crushed	25.50	11,577	redness disappears.
Garlic powder	0.01	5	7. Drain off excess liquid
Salt, table	0.46	209	from meat and discard.
Oregano, ground	0.01	5	8. Combine all ingredients
Pepper, cayenne	0.01	5	with water, mix thoroughly
Thyme, ground	0.01	5	and add to cooked beef.
Sugar, white, granulated	0.63	286	9. Heat to 180°F and
Bay leaves, ground fine	0.01	5	simmer covered for 30
Water, tap	16.00	7,264	minutes (mixer on low speed).
Flour, rice	0.19	86	10. Bring volume to 7.8
			gallons, mix thoroughly.*3
			11. Place 10 oz of sauce
			in foil container.*2
			12. Cover, mark, and freeze.
Total	92.25	41,884	

NOTES:

1. Yield for spaghetti approximately 3.5:1.
2. Reheat sauce in oven at 350°F to an internal temperature of 160°F.
3. Reheat spaghetti in boiling water (1 minute). Drain.
4. Freeze-thaw stable starch may be used in lieu of rice flour.  
\*Critical Control Points:
  1. Check doneness of spaghetti.
  2. Check fill weight of components.
  3. Check volume and temperature of sauce mixture.

SWEDISH MEATBALLS1-41Yield: 100 PortionsEach Portion: 3 Meatballs  
1/3 cup gravy

Ingredients	Pounds	Grams	Procedure
Onions, dehydrated, chopped	0.42	191	1. Add water to nonfat dry milk and dehydrated onions. Mix thoroughly and let stand no longer than 30 minutes before use.*1
Milk, nonfat dry	0.32	145	
Water, tap	6.45	2,928	
Bread crumbs	2.88	1,308	
Eggs, whole beaten	1.00	454	
Pepper, black	0.01	5	2. Combine all ingredients with beef in mixer and mix lightly but thoroughly.
Salt, table	0.25	114	
Beef, boneless, ground	30.50	13,847	3. Form into 2 ounce meatballs.*2
<u>Gravy</u>			4. Bake in oven at 350°F, to an internal temperature of 165° (35 minutes).*3
Flour, wheat, general purpose	0.76	345	5. Pan 3 meatballs per foil container.
Water, tap	31.50	14,301	
Flour, rice	0.76	345	6. Add $\frac{1}{2}$ formula water to steam kettle. Combine all seasonings except flour and starch.
Soup & gravy base, beef	1.43	649	
Garlic powder	0.01	5	7. Blend thoroughly. Heat to 180°F and turn off steam.
Nutmeg, ground	0.01	5	
Oregano, ground	0.01	5	8. Combine remaining water, flour, and starch to make a slurry.
Pepper, black	0.01	5	
Paprika, ground	0.02	9	9. Add slurry slowly to steam kettle containing seasoning.
<u>Total</u>			10. Heat mixture at 200°F with constant stirring for 5 minutes. Adjust volume to 4 gallons.*4
	76.34	34,661	11. Pour 5 oz. gravy over paned meatballs.*5
			12. Cover, mark, and freeze.

NOTES:

1. Reheat covered in oven at 350°F until product internal temperature reaches 160°F.
2. Freeze-thaw stable starch may be used in lieu of rice flour.  
\*Critical Control Points:
  1. Check milk & egg mixture for time requirement.
  2. Check weight of formed meatballs.
  3. Check temperature of cooked meatballs.
  4. Check volume & temperature of gravy.
  5. Check filling requirements.

# HOT ROAST BEEF WITH GRAVY

L-9

Yield: 100 Portions

Each Portion: 4 oz Beef  
4 oz Gravy

Ingredients	Pounds	Grams	Procedure
Beef, boneless roast	40.00	18,160	1. Sprinkle salt and pepper over roasts.
Salt, table	0.38	173	2. Bake in 325°F oven until internal temperature reaches 140-150°F.*1
Pepper, black	.02	9	3. Place in cooler to chill meat for slicing (save drippings for use in gravy mfg.).
			4. When cool, slice meat in approximately 3/16" slices.
			5. Place 4 oz meat per foil container.*2
<u>Gravy</u>			
Meat drippings or shortening	1.63	740	6. Heat drippings saved from cooking of roasts.
Flour, wheat, general purpose	0.93	422	7. Add flour to make a smooth roux. Turn off steam after flour has cooked.
Flour, rice	0.62	281	8. Blend starch in with cold water; add remaining seasonings. Pour into kettle. Blend thoroughly.
Water, tap	22.31	10,130	9. Heat mixture to thicken starch and form a smooth gravy. Adjust volume to 3.25 gallons, blending well. Maintain heat at 180°F.*3
Soup & Gravy base, beef	.50	227	10. Pour 4 oz gravy over paned sliced beef.*4
Caramel coloring, powdered	.01	5	11. Cover, mark, and freeze.
Pepper, black	.02	9	
Total	66.42	30,156	

## NOTES:

1. Reheat covered in oven at 350°F until product internal temperature is no less than 160°F.
  2. Freeze-thaw stable starch may be used in lieu of rice flour.
- \*Critical Control Points:
1. Check internal temperature of roasts.
  2. Check weight of meat for fill.
  3. Check gravy volume and temperature.
  4. Check fill for gravy.

CHICKEN FRIED STEAKSL-12Yield: 100 PortionsEach Portion: 1 steakTemperature: 350°F. Griddle; 350°F Oven

Ingredients	Pounds	Grams	Procedure
Beef, boneless, swiss steak	40.00	18,160	1. Dredge steaks in seasoned flour. Reserve excess flour for use in Step 3.
Flour, wheat, general purpose	4.00	1,816	
Salt, table	0.50	227	
Pepper, black	0.02	9	
Monosodium glutamate	0.01	5	2. Reconstitute milk; add eggs and blend thoroughly. 3. Dip steak in egg and milk mixture. Drain well. 4. Dip in flour remaining from Step 1. Note: Do not allow unbrowned steaks to remain at room temperature more than 30 minutes.*1
Milk, nonfat, dry	0.41	186	
Water, tap	3.75	1,703	
Eggs, whole, beaten	2.00	908	
Shortening, melted	2.00	908	5. Brown steaks evenly on both sides on well-greased griddle. 6. Overlap steaks in lightly greased pans. Cover pans tightly. 7. Bake steaks until internal temperature reaches 165°F (45-60 minutes).*2 8. Place one steak in each foil container. 9. Cover, mark, and freeze.
Total	52.69	23,922	

NOTES:

1. Reconstitute in 325°F to an internal temperature of 160°F (35-40 min.).
2. Use the count of 100 steaks not the exact pounds as listed in Step 1.
3. Other types of milk may be used in Step 2.
4. If steaks are not tenderized, they may be by running through tenderizing machine waffle. Score each steak with a knife or pound steak with a waffled mallet.

- \*Critical Control Points:
1. Check milk and egg mixture for time requirement.
  2. Check internal temperature of cooked steaks.

CORNERD BEEF HASH1-42Yield: 100 PortionsEach Portion: 10 ounces

Ingredients	Pounds	Grams	Procedure
Peppers, sweet, green fresh, chopped 1/8 inch	1.67	758	1. Rehydrate onions with excess tap water for 10 minutes and then drain.
Onions, dehydrated, minced	0.83	377	2. Saute onions and chopped peppers in shortening.
Shortening	1.11	504	3. Blanch potatoes in boiling water for 4 minutes. Rinse immediately with excess cold water to cool.
Potatoes, diced 3/8 inch	24.00	10,896	4. Place all ingredients in mixing bowl and mix on low speed until thoroughly mixed (30 seconds). *1
Corned beef, canned	24.00	10,896	5. Weigh 10 ounces per foil container. *2
Pepper, black	0.03	14	6. Cover, mark, and freeze.
Total	51.64	23,445	

## NOTES:

1. Reconstitute in 325°F oven to an internal temperature of 160°F.  
Leave cover on for first 25 minutes then remove for last 15 minutes.

- \*Critical Control Points:
1. Check mixing of ingredients.
  2. Check fill weight.



SWISS STEAK WITH BROWN GRAVYL-16-1Yield: 100 PortionsEach Portion: 1 steak,  
3 ounces gravyTemperature: 350°F Griddle; Oven 325°F.

Ingredients	Pounds	Grams	Procedure
Beef, boneless swiss steak (100 steaks)	40.00	18,160	1. Dredge steaks in seasoned flour. Shake off excess.
Flour, rice	2.20	999	
Pepper, black	0.02	9	
Salt, table	0.18	82	
Shortening, vegetable	2.00	908	2. Brown floured steaks on well greased grill (both sides). 3. Shingle 50 steaks in each pan and hold for Step 4.
Onions, dehydrated, chopped	0.43	195	4. Combine onions, garlic powder, pepper, salt, gravy base, Worcestershire sauce and water. Mix thoroughly and pour equally over pans of shingled beef steaks.
Garlic powder	0.01	5	5. Cover pans and heat in 325°F oven until meat is tender (2½ hours).
Pepper, black	0.01	5	6. Drain and retain liquid stock for Step 8.
Salt, table	0.30	136	7. Place one steak in each foil container and hold for Step 10.
Soup & gravy base, beef	0.22	100	
Water, hot, tap	15.00	6,810	8. Add beef stock to steam kettle. Make a paste of starch and cold water. Add to stock.
Worcestershire sauce	0.45	204	9. Heat to a boil. Boil for 15 minutes. Bring volume up to 2.5 gallons with hot water.*1
Water, cold, tap	1.64	745	10. Pour 3 ounces of gravy over each steak.*2
Flour, rice	0.27	123	11. Cover, mark, and freeze.
Beef stock	21.00	9,534	
Total	83.73	38,015	

SWISS STEAK WITH BROWN GRAVY

L-16-1

NOTES:

1. Formula makes servings for 100 foil pack containers.
  2. 3 pounds of fresh onions may be substituted for dehydrated onions in Step 4.
  3. Foil pack pans are reconstituted in 325°F oven to an internal temperature of 160°F (35-40 minutes).
  4. Pounds in formula for steaks are only a guide, use count of steaks to assure 100 steaks.
  5. Field pans used in cooking were length 20 inches, width 17 inches, depth 6.5 inches.
  6. If steaks are not tenderized, they may need to be run through a cubing machine to allow flour to stick.
  7. Freeze-thaw stable starch may be used in lieu of rice flour.
- \*Critical Control Points: 1. Gravy volume.  
2. Check proper fill.

SWISS STEAK WITH TOMATO SAUCEL-16Yield: 100 PortionsPortion Size: 1 steak,  
3 ounces sauceTemperature: 350°F Griddle; 325°F Oven

Ingredients	Pounds	Grams	Procedure
Beef, boneless, swiss steak (100 steaks)	40.00	18,160	1. Dredge steaks in seasoned flour. Shake off excess.
Flour, rice	2.20	999	
Pepper, black	0.02	9	
Salt, table	0.18	82	
Shortening, vegetable	2.00	908	2. Brown floured steaks on well greased grill (both sides.).
			3. Shingle 50 steaks in each pan and hold for Step 4.
Onions, dehydrated, chopped	0.43	195	4. Combine onions, peppers, garlic powder, pepper, salt, tomatoes, and Worcestershire sauce, mix thoroughly and pour equally over pans of shingled beef steaks.
Pepper, sweet, fresh, green chopped, $\frac{1}{4}$ inch	2.00	908	5. Cover pans and heat in 325°F oven until meat is tender (2½ hours).
Water, hot, tap	10.00	4,540	6. Drain and retain liquid stock for Step 8.
Garlic powder	0.01	5	7. Place one steak in each foil container and set aside for Step 10.
Pepper, black	0.01	5	
Salt, table	0.30	136	8. Add beef stock liquid to steam kettle. Make a paste of starch and cold water, add to stock.
Tomatoes, canned, crushed	13.25	6,016	9. Heat to a boil. Boil for 15 minutes. Bring volume up to 2.5 gallons with hot water.*1
Worcestershire sauce	0.45	204	10. Pour 3 ounces of sauce over each steak.*2
			11. Cover, mark, and freeze.
Water, cold, tap	1.64	745	
Flour, rice	0.29	132	
Beef stock	21.00	9,534	
Total	93.78	42,578	

SWISS STEAK WITH TOMATO SAUCE

L-16

NOTES:

1. Formula makes servings for 100 foil pack containers.
2. 3 pounds of fresh onions may be substituted for dehydrated onions in Step 4.
3. 5-1/3 ounces of dehydrated green peppers may be substituted for fresh peppers in Step 4.
4. Pans are reconstituted at 325°F to an internal temperature of 160°F (35-40 minutes).
5. If steaks are not tenderized, they may need to be run through a cubing machine to allow flour to stick.
6. Pans used in cooking were field cooking square lugs (length 20 inches, width 17 inches, depth 6.5 inches).
7. Freeze-thaw stable starch may be used in lieu of rice flour.

\*Critical Control Points: 1. Gravy volume.  
2. Check proper fill.

BAKED FRANKFURTERS WITH SAUERKRAUT

L-60

Yield: 100 Portions

Each Portion: 2 franks  
4 ounces kraut

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Frankfurters, chilled	25.00	11,350	1. Place two frankfurters in each foil container.
Sauerkraut, drained	25.00	11,350	2. Spread 4 ounces of sauerkraut over each container of frankfurters.*1
			3. Cover, mark, and freeze.
<u>Total</u>	<u>50.00</u>	<u>22,700</u>	

NOTES:

1. Reheat covered in oven at 350°F until internal temperature reaches 160°F.

\*Critical Control Points: 1. Check filling weights.

BARBECUED FRANKFURTERSL-61Yield: 100 PortionsServing: 2 franks, 4 oz.

Ingredients	Pounds	Grams	Procedure
Frankfurters	25.30	11,486	1. Slit frankfurters length-wise; place 2 per foil container.
Shortening	1.26	572	2. Rehydrate onion in excess
Onions, dehydrated, chopped	0.30	136	water, drain. Saute onions
Sugar, granulated	1.26	572	in shortening in a suitable
Pepper, black	0.07	32	size steam kettle.
Mustard, dry	0.24	109	3. Add remaining ingredients
Paprika	0.16	73	to kettle, simmer for 10
Worcestershire Sauce	0.68	309	minutes. Adjust volume to
Hot sauce	0.23	104	3.2 gallons with hot
Catsup	11.40	5,176	water.*1
Vinegar, white	5.06	2,297	4. Pour 4 oz sauce over
Water, tap	5.06	2,297	prepanned frankfurters.*2
			5. Cover, mark, and freeze.
Total	51.02	23,163	

## NOTES:

1. Reheat covered in oven at 350°F until internal temperature of frankfurters reaches 160°F.

- \*Critical Control Points:
1. Check volume of sauce.
  2. Check filling weight.

BAKED FISH WITH CHEESE SAUCEL-106Yield: 100 PortionsEach Portion: One piece of fish, 6 ounces sauceTemperature: 375° oven

Ingredients	Pounds	Grams	Procedure
Fish, fillet, cod or haddock	50.00	22,700	1. Cut fish into 8 ounce pieces and place on greased pan (18 by 26 inches).
Margarine, melted	2.00	908	2. Combine melted margarine with lemon juice and pour evenly over fish.
Lemon juice	0.85	386	3. Sprinkle paprika over fish.
Paprika, ground	0.10	45	4. Bake about 25 minutes or until brown in a 375° F oven.*1
			Drain liquid from cooked fish and save for Step 7.
			5. Place one piece of cooked fish in each foil container and set aside for Step 10. (Fish may be held in cooler until ready for panning).
Margarine	3.25	1,476	6. Heat margarine in steam kettle. Sprinkle with flour, mix thoroughly and cook 10 minutes. Hold for Step 7.
Flour, rice	1.95	885	
Starch, Col Flo 67	0.26	118	7. Combine starch, nonfat dry milk, water or stock, and salt, mix thoroughly. Heat to 180° F. Add to flour mixture with constant stirring.
Milk, nonfat, dry	2.75	1,248	
Water, tap or fish stock	26.00	11,804	8. Add cheese to mixture resulting from Steps 6 & 7 and heat until cheese is completely melted.
Salt, table	0.15	68	9. Adjust volume to 5 gallons with hot water.*2
Cheese, cheddar, shredded or ground	4.50	2,043	10. Pour 6 ounces of sauce over fish in each foil container.*3
			11. Cover, mark, and freeze.
Total	91.81	41,681	

BAKED FISH WITH CHEESE SAUCE

L-106

NOTES:

1. Reconstitute in 350°F oven to an internal temperature of 160°F (35-40 minutes).
  2. 10 lemons A.P. will yield .85 pounds of juice in Step 1.
  3. Freeze-thaw stable starch may be used in lieu of rice flour.
- \*Critical Control Points:
1. Check cooking time and temperature of fish.
  2. Check volume of sauce.
  3. Check proper fill.



BAKED TUNA AND NOODLESL-124Yield: 100 PortionsEach Portion: 1 cup, 8.50 ouncesTemperature: 350°F Oven

Ingredients	Pounds	Grams	Procedure
Tuna, canned, white	17.00	7,718	1. Drain tuna; flake. Set aside for use in Step 7.
Noodles, dry, medium	5.00	2,270	2. Cook noodles in salted water (3 gallons) until tender (15-20 minutes). Rinse thoroughly and set aside for Step 7.
Salt, table	0.11	50	
Milk, nonfat, dry	2.50	1,135	3. Add milk and starch to water, mix thoroughly, and heat slowly to 180°F. Hold for Step 5.
Water, warm	24.00	10,896	
Starch, Col Flo 67	0.42	191	
Flour, rice	1.27	577	4. Melt butter or margarine in large steam kettle, sprinkle flour and salt in and mix thoroughly. Cook for 10 minutes with constant stirring.
Salt, table	0.16	73	5. Add heated milk-starch mixture to the fat-flour mixture. Simmer for 10 minutes stirring constantly. Hold sauce for Step 7.
Butter or margarine	2.25	1,022	
Celery, fresh, chopped 1/8 inch pieces	4.00	1,816	6. Rehydrate onions in excess cold water for 10 minutes, drain. Saute celery and onions in fat until tender. Set aside for Step 7.
Onions, dehydrated, sliced	0.09	41	
Butter or margarine	0.42	191	
Pimientos, canned, drained, chopped 1/4"	0.85	386	7. Combine tuna, noodles, sauteed vegetables, and pimientos with sauce. Mix thoroughly, heat to 180°F, and adjust volume to 6.5 gallons with hot water.*1
Cheese, cheddar, natural, shredded	1.50	681	8. Place 8.5 ounces in each foil container.*2
Paprika, ground	0.06	27	9. Sprinkle cheese evenly over top of tuna.
Bread crumbs, dry	0.85	386	10. Mix bread crumbs and paprika together and spread evenly over cheese.
Total	60.48	27,460	11. Cover, mark, and freeze.

BAKED TUNA AND NOODLES

L-124

NOTES:

1. Reconstitute in 350°F oven to an internal temperature of 160°F (35-40 minutes).
  2. 12 ounces of fresh onions may be used in Step 6.
  3. 3½ gallons of other types of milk may be substituted for non-fat dry milk and water in Step 3.
  4. Freeze-thaw stable starch may be used in lieu of rice flour.
- \*Critical Control Points:
1. Check finished product temperature and volume.
  2. Check for proper fill weight.

SALMON CAKESI-114Yield: 100 PortionsEach Portion: 2 cakes-5 oz.

Ingredients	Pounds	Grams	Procedure
Salmon, canned	20.00	9,080	1. Drain salmon and reserve juice for Step 3; remove skin and bones. Flake.
Potatoes, white, instant	4.00	1,816	2. Combine instant potatoes, nonfat dry milk and salt. Set aside for use in step 5.
Milk, nonfat, dry	0.21	95	3. Heat water and salmon juice to boiling and pour into mixer bowl.
Salt, table	0.06	27	4. Add butter or margarine.
Water and salmon juice	10.50	4,767	5. Add potato mixture rapidly to hot water and juice, whip until smooth.
Butter or margarine	0.50	227	6. Cool potatoes.
Eggs, whole, beaten	2.00	908	7. Combine salmon, cooked potatoes, eggs, onions, and pepper. Mix thoroughly.
Onions, dehydrated, chopped	0.09	41	Chill to at least 35° F.*1
Pepper, black	0.03	14	8. Shape on Hollymatic weight of 2.5 oz. per patty.*2
Flour, wheat, general purpose	1.00	454	9. Roll each cake in flour.
			10. Deep fry at 360° F. for 1 minute or until golden brown. Drain.*3
			11. Place two patties per foil container.*4
			12. Cover, mark, and freeze.
Total	38.39	17,429	

NOTES:

1. Reconstitute uncovered in 325°F oven to an internal temperature of 160°F.

- \*Critical Control Points:
1. Check temperature of salmon, potato, egg mixture.
  2. Check patty size and weight.
  3. Check deep frying procedure.
  4. Check proper filling procedure.

PORK CHOP SUEY

L-80(1)

Yield: 100 Portions

Each Portion: 8 oz.

Ingredients	Pounds	Grams	Procedure
Pork, boneless, diced	32.00	14,528	1. Brown diced pork in its own fat sprinkled with salt and pepper in a steam kettle.
Salt, table	0.26	118	
Pepper, black	0.03	14	
Water, tap	9.18	4,168	2. Cover pork with water provided; bring to a boil. Cover and simmer 1 hour.
Onions, dehydrated, sliced	1.50	681	3. Rehydrate onions in excess water, drain, and add rehydrated onions and sliced celery to kettle approximately 20 minutes prior to 1 hour cook of pork.*1
Celery, sliced, 3/16"	8.01	3,637	
Bean sprouts, canned, (drained)	12.01	5,453	4. Drain bean sprouts reserving liquid.
Flour, rice	1.25	568	5. Combine the liquid from the beansprouts, flour, and ginger. Stir to make a smooth paste.
Ginger, ground	0.01	5	
Soy sauce	1.00	454	6. Add slurry slowly to mixture stirring constantly. Cook 5 minutes or until thickened.
Molasses	0.35	159	
			7. Add bean sprouts, mix well.
			8. Stir in soy sauce and molasses. Blend well and adjust volume to 6.25 gallons.*2
			9. Place 8 oz product per foil container.*3
			10. Cover, mark, and freeze.
Total	65.59	29,785	

NOTES:

1. Reheat in oven at 325°F until product internal temperature reaches 160°F. Do not loosen or remove cover.
2. Frozen sliced onions may be substituted for the dehydrated at the ratio of 8 parts to 1.

- \*Critical Control Points:
1. Check for tenderness of meat and vegetables.
  2. Check sauce preparation and finished volume.
  3. Check for proper fill.

SWEET AND SOUR PORKL-82Yield: 100 PortionsEach Portion: 1 cup

Ingredients	Pounds	Grams	Procedure
Pork, diced, boneless	32.00	14,528	1. Combine eggs, soy sauce, flour, salt, and garlic powder. Stir until blended. Pour sauce over meat and mix to coat pieces. Let stand for 10 minutes. 2. Cook pork dices in deep fat fryer set at 360°F for approximately 2 minutes or until meat is cooked to 160°F.*1
Egg, whole, beaten	0.96	436	
Soy sauce	0.96	436	
Flour, rice	0.96	436	
Salt, table	0.24	109	
Garlic powder	0.01	5	
Bean sprouts, canned, drained	12.96	5,884	3. Drain bean sprouts and pineapple, saving the liquid to combine with water requirements.
Pineapple, canned, chunks	6.48	2,942	
Pineapple juice and water	26.02	11,813	4. Combine the appropriate quantities of juice-water mixture, soy sauce, salt, sugar, and flour to make a slurry. Add green peppers and cook mixture for 5 minutes at 200°F. 5. Add cooked meat, vinegar, bean sprouts, and pineapple chunks. Blend and heat mixture to 180°F. 6. Add vinegar, blend thoroughly. Adjust volume to 7 gallons.*2 7. Weigh 9 oz. or 1 fluid cup per foil container.*3 8. Cover, mark, and freeze.
Soy sauce	0.48	218	
Salt, table	0.12	54	
Sugar, granulated	4.00	1,816	
Flour, rice	0.99	449	
Pepper, sweet, fresh, diced 1"	1.99	903	
Vinegar, white	2.25	1,022	
Total	90.42	41,051	

NOTES:

1. Reheat covered in oven at 325°F until internal temperature reaches at least 160°F.

2. Freeze-thaw stable starch may be used in lieu of rice flour.

- \*Critical Control Points:
1. Check preparation of meat and sauce.
  2. Check temperature and volume requirement.
  3. Check fill weight.

BARBECUED PORK LOINL-79(1)Yield: 100 PortionsEach Portion: 4 oz. meat  
4 oz sauce

Ingredients	Pounds	Grams	Procedure
Pork loin, boneless	42.00	19,068	1. Place seasoned roasts in pans. Do not add water or cover. 2. Bake to an internal temperature of 170°F.*1 Drain fat and cool roast to 60°F before slicing.
Salt, table	0.25	114	
Pepper, black	0.02	9	
<u>Sauce</u>			
Sugar, white, granulated	2.00	908	3. Combine sauce ingredients and bring to a boil. Reduce heat and simmer until sauce is blended. (Approximately 30 minutes).
Sugar, brown	.25	114	
Mustard, ground	.06	27	
Salt, table	.06	27	
Hot sauce	.03	14	
Meat sauce	.56	254	
Tomato paste	.30	136	
Vinegar, white	4.00	1,816	
Juice, lemon	0.50	227	
Water	6.00	2,724	
Salad oil	.06	27	4. Dissolve flour in water and add to sauce. Heat for 5 minutes at 200°F. Adjust volume to 3.25 gallons blending thoroughly.*2 5. Slice roast in 2 oz slices placing 4 oz product per foil container. Pour 4 oz sauce over panned meat.*3 6. Cover, mark, and freeze.
Flour, rice	.16	73	
Water, tap	.50	227	
Total	56.75	25,765	

NOTES:

1. Reheat covered in 325°F oven until product temperature reaches 160°F.

2. Freeze-thaw stable starch may be used in lieu of rice flour.

- \*Critical Control Points:
1. Check preparation of meat and sauce.
  2. Check temperature and volume requirements.
  3. Check filling requirements.

SLICED PORK WITH GRAVYL-81-1Yield: 100 PortionsEach Portion: 4 oz meat  
4 oz gravy

Ingredients	Pounds	Grams	Procedure
Pork loin, boneless	39.00	17,706	1. Rub pork with salt and pepper; place in pans.
Salt, table	0.50	227	2. Insert meat thermometer in the center of the thickest part of a roast. Do not add water or cover.
Pepper, black	0.06	27	3. Roast 2-4 hours or until product temperature reaches 160°F (325°F oven). *1
			4. Let stand 20 minutes in chilling box before slicing into 2 oz slices.
Meat drippings or shortening	1.50	681	5. Place meat drippings or shortening in steam kettle.
Flour, rice	1.12	508	6. Sprinkle flour evenly over meat drippings or shortening. Cook at 200°F for 20 minutes, stirring constantly, to form roux.
Water, tap	16.80	7,627	7. Mix water, soup and gravy base, and pepper together and add to the roux.
Soup & gravy base, ham	0.50	227	8. Heat to 200°F for 10 minutes. Adjust volume to 3.5 gallons. *2
Pepper, black	0.01	5	9. Place 4 oz of sliced pork and 4 oz gravy per foil container. *3
			10. Cover, mark, and freeze.
Total	59.49	27,008	

NOTES:

1. Reheat covered in oven at 350°F until internal temperature of the sliced pork reaches at least 160°F.
2. Freeze-thaw stable starch may be used in lieu of rice flour. Use starch on a 50-50 basis with general purpose flour.

\*Critical Control Points: 1. Check preparation of meat.  
2. Check temperature and volume requirement.  
3. Check filling weights.

BAKED PORK SLICES WITH GRAVYL-83Yield: 100 PortionsEach Portion: 5 oz meat, 3 oz gravy

Ingredients	Pounds	Grams	Procedure
Pork, slices, boneless, partially thawed	35.00	15,890	1. Mix flour, salt, pepper, paprika, and thyme together thoroughly. Dredge pork slices in the seasoned flour. Shake off excess. 2. Place on sheet pans and bake in 350°F oven until internal temperature reaches 160°F.*1
Flour, wheat, general purpose	1.75	795	
Salt, table	0.25	114	
Pepper, black	0.01	5	
Paprika	0.03	14	
Thyme	0.01	5	
<u>Brown gravy</u>			
Flour, rice	1.10	199	3. Mix all dry ingredients together and add to water. Stir vigorously to get into solution. 4. Heat for 15 minutes at 200°F, stirring constantly. 5. Adjust to 2.4 gallons.*2 6. Place one slice per foil container and cover with 3 oz gravy.*3 7. Cover, mark, and freeze.
Pepper, black	0.01	5	
Soup & gravy base, ham	0.50	227	
Water, tap	20.42	9,271	
Total	59.08	26,825	

NOTES:

1. Reheat in oven at 350°F until product internal temperature reaches no less than 160°F.
2. Freeze-thaw stable starch may be used in lieu of rice flour. Use starch on a 50-50 basis with general purpose flour.  
\*Critical Control Points:
  1. Check preparation of pork slices.
  2. Check temperature and volume requirements of gravy.
  3. Check for proper fill.



BREADED PORK SLICESL-86Yield: 100 PortionsTemperature: 360°F deep fat

Ingredients	Pounds	Grams	Procedure
Pork slices, boneless (partially thawed)	35.00	15,890	1. Dredge slices in seasoned flour and bread crumbs.
Flour, wheat, general	1.75	795	
Salt, table	0.33	173	
Pepper, black	0.03	14	
Bread crumbs	4.00	1,816	
Milk, nonfat, dry	0.38	173	2. Reconstitute milk, combine with beaten eggs.
Water, tap	3.50	1,589	3. Dip slices in milk-egg mixture.
Eggs, whole, beaten	1.00	454	4. Deep fat fry at 360°F until brown (2-3 minutes). *1
			5. Place one slice in each foil container.
			6. Cover, mark, and freeze.
Total	46.04	20,904	

## NOTES:

1. Reconstitute in 325°F oven to an internal temperature of 160°F (35-40 minutes).
2. Other types of milk may be used in step 2.
3. 39 pounds pork loin, boneless may be used in step 1. Cut into chops weighing 3 oz each. Each portion: 2 chops.

\*Critical Control Point: 1. Check preparation methods.

BAKED HAM WITH CHERRY SAUCEL-65-2Yield: 100 PortionsEach Portion: 4 oz meat, 2 oz sauce

Ingredients	Pounds	Grams	Procedure
Ham, canned, whole	30.00	13,620	1. Slice ham in 2 oz slices. Place 4 oz per foil container.*1
<u>Sauce</u>			
Cherries, canned, RSP	6.44	2,924	2. Add sugar and salt to cherries. Bring to a boil in a suitable size steam kettle.
Sugar, white, granulated	2.73	1,239	
Salt	0.03	14	3. Blend flour and water to make a smooth paste.
Flour, rice	0.31	141	
Water, tap	2.00	908	4. Add paste to cherries, stirring constantly. Cook 5 minutes at 200°F.
Butter or margarine, melted	0.13	59	
Juice, lemon	0.25	114	5. Add butter or margarine and juice. Adjust volume to 1.6 gallons.*2 Mix well.
			6. Add 2 oz sauce to prepanned ham.*3
			7. Cover, mark, and freeze.
Total	41.89	19,019	

NOTES:

1. Reheat covered in 325°F oven until internal temperature reaches 160°F.
2. Freeze-thaw stable starch may be used in lieu of rice flour.

\*Critical Control Points: 1. Check slices for weight.  
2. Check volume of sauce.  
3. Check fill weights.

GRILLED HAM WITH PINEAPPLE SAUCE1-65-2Yield: 100 PortionsEach Portion: 4 oz ham; 2 oz sauce

Ingredients	Pounds	Grams	Procedure
Ham, canned, whole	34.00	15,436	1. Slice ham into 2 oz slices. Grill on 400°F grill. 2. Place 4 oz per foil container.*1
<u>Sauce</u>			
Water, boiling	6.00	2,724	3. In a suitable size steam kettle, add sugar and salt to water; stir until dissolved.
Sugar, white, granulated	5.00	2,270	
Salt	0.02	9	
Flour, rice	0.50	227	4. Blend flour and cold water to make a smooth paste. Add paste to hot water, stirring constantly; cook 5 minutes at 200°F stirring constantly.
Water, cold	2.00	908	
Butter or margarine	1.00	454	5. Add remaining ingredients; mix and allow to return to boiling. Adjust volume to 1.6 gallons with hot water.*2
Pineapple, canned, crushed	6.81	3,092	
Nutmeg, ground	0.01	5	6. Place 2 oz sauce over prepanned ham slices.*3 7. Cover, mark, and freeze.
Juice, lemon	0.25	114	
Lemon rind, grated (optional)	0.19	86	
Total	55.78	25,325	

NOTES:

1. Reheat uncovered in 325°F oven until product temperature reaches 160°F.
2. 1 lb. lemons (A.P. (4 lemons)) will yield 3/4 cup juice.
3. Freeze-thaw stable starch may be used in lieu of rice flour.

- \*Critical Control Points:
1. Check ham slices for weight.
  2. Check sauce for volume.
  3. Check for proper fill weight.

BARBEQUED SPARERIBSL-92Yield: 100 PortionsEach Portion: 1 triple rib, 4 ounce sauceTemperature: 400°F oven and 325°F oven

Ingredients	Pounds	Grams	Procedure
Pork Spareribs	55.00	24,970	1. Cut pork spareribs into three rib pieces, not more than 5½ inches long and 4 inches wide. *1 2. Place ribs in single layer, fat side up in sheet pans. Bake 30-40 minutes at 400°F or until golden brown. 3. Place ribs in field pans, 50 portions per pan. Hold for Step 5.
Chili powder, dark	0.75	341	4. Combine all seasonings
Pepper, black	0.02	9	ingredients in steam kettle, mix
Pepper, cayenne	0.02	9	thoroughly and heat to a boil,
Salt, table	0.25	114	reduce heat and simmer 10 minutes.
Onion powder	0.07	32	Bring volume back to 4 gal with
Sugar, light brown	0.33	150	water, mix and heat to 180°F. *2
Paprika	0.11	50	5. Pour sauce equally over ribs,
Flour, rice	0.30	136	making sure all ribs have sauce.
Capsup, tomato	23.00	10,442	Cover pans.
Worcestershire sauce	2.00	908	6. Bake at 325°F for 1½ hours, or
Mustard, prepared	1.00	454	until ribs are tender (170°F). *3
Vinegar, cider or white	2.00	908	7. Place one triple rib in each
Lemon juice	0.75	341	foil pack container.
Water	5.00	2,270	8. Pour 4 ozs of sauce from pan
			over ribs in each foil pack
			container. *4
			9. Cover, mark and freeze.
Total	90.60	41.134	

NOTES:

1. Reconstitute in 325°F oven to an internal temperature of 160°F. (30-40 min).
2. Sheet pans = Length: 25 inches; width: 17 inches; depth: 1½ inches.
3. Field lugs = Length: 20 inches; width: 17 inches; depth: 6½ inches.
4. Freeze thaw stable starch may be used in lieu of rice flour.

- \*Critical Control Points:
1. Check dimensions of ribs.
  2. Check volume for sauce.
  3. Check temperature requirements.
  4. Check for proper fill.

BRAISED SPARERIBS WITH SAUERKRAUT

L-93

Yield: 100 PortionsEach Portion: 1 triple rib, 4 ounces sauerkraut

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Pork spareribs	55.00	24,970	1. Cut pork spareribs into three rib pieces, not more than 5½ inches long and 4 inches wide. *1 2. Place ribs in single layer, fat side up in sheet pans. Bake 40 minutes at 400°F or until golden brown. 3. Drain and place ribs in field pans, 50 portions per pan. Hold for step 4.
Onions, dehydrated chopped	0.60	272	4. Combine onions, salt, pepper and water in steam kettle. Heat to a boil and spread evenly over ribs.
Salt, table	0.30	136	5. Bake covered at 325°F for 1½ to 2 hours or until ribs are tender (170°F) *2
Pepper, black	0.06	27	6. Place one triple rib in each foil pack container. Spread 4 ounces of canned sauerkraut over rib. *3
Water, hot	20.00	9,080	7. Cover, mark and freeze.
Sauerkraut, canned drained	28.00	12,712	
Total	103.96	47,197	

NOTES:

1. Reconstitute at 325°F in oven covered to an internal temperature of 160°F (35-40 minutes).
2. 4.8 lbs of fresh chopped onions may be substituted for d-hydrated onions in step 4.
3. Sheet pans = length: 25 inches; width: 17 inches; depth: 1½ inches.
4. Field Pans = length: 20 inches; width: 17 inches; depth: 6½ inches.

\*Critical Control Points: 1. Check dimensions of ribs.  
2. Check for temperature requirements.  
3. Check for proper fill.

BARBECUED CHICKENL-128Yield: 100 PortionsEach Portion: 2 pieces chicken, 4 ounces sauceTemperature: 325°F oven and 375°F oven

Ingredients	Pounds	Grams	Procedure
Chicken, broiler, fryer, cut-up	50.00	22,700	1. Separate legs, wings, breasts and thighs into individual pieces and place on greased pans.
Shortening	1.00	454	2. Heat, uncovered in 375°F oven until slightly brown (20-30 minutes). Hold for step 6.
Onions, dehydrated, sliced	0.37	168	3. Combine water, flour and all remaining seasonings into steam kettle and heat to 200°F.
Worcestershire sauce	2.25	1,022	4. Simmer for 15 minutes. Hold for step 5.
Catsup, tomato	16.50	7,491	
Mustard, prepared	1.00	454	
Sugar, light brown	2.50	1,135	
Salt, table	0.65	295	
Pepper, black	0.01	5	
Pepper, cayenne	0.01	5	
Margarine or butter	1.00	454	
Flour, rice	0.35	159	
Water, tap	12.00	5,448	
Vinegar, white	4.00	1,816	5. Add vinegar, mix well and bring volume to 4 gal with hot water. *1
			6. Pour sauce equally over each pan of chicken, cover and bake at 325°F to an internal temperature of 165°F (1½ hrs).
			*2
			7. Place two pieces of cooked chicken in each foil pack container. *3
			8. Pour 4 ozs of barbecue sauce over chicken. *3
			9. Cover, mark and freeze.
Total	91.64	41,606	

NOTES:

1. Reconstitute in a 325°F oven to an internal temperature of 160°F. (35-40 minutes).
  2. The following is a suggested method of panning; breast-leg, breast-leg, thigh-wing, thigh-wing.
  3. Pans used in cooking can be either full steam table or field pans.
  4. Freeze thaw stable starch may be used in lieu of rice flour.
- \*Critical Control Points: 1. Check volume.  
2. Check internal temperature.  
3. Check for proper fill.

CHICKEN POT PIEL-132Yield: 100 PortionsEach Portion: 1 cup plus topping

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Chicken, whole, raw	45.00	20,430	1. Place whole chickens in deep sided pans. Mix seasoning with water and divide equally among pans. Cover and place in steam oven and cook for approx. 45 min. or until chicken reaches 175°F. After cooking, drain stock and retain for use in step 3. Place cooked chicken in cooler to bring temperature down enough to handle. Debone and save for use in step 6. *1
Water, tap	13.42	6,093	
Salt, table	0.35	159	
Monosodium glutamate	0.18	82	
Bay leaves, ground fine	0.01	5	
Butter or margarine	0.94	427	2. Melt margarine in kettle to be used for batch. Add flour and cook to a smooth sauce.
Flour, wheat, general purpose	1.18	536	
Chicken stock	22.52	10,224	3. Add chicken stock and seasonings. Mix thoroughly.
Pepper, black	0.02	9	
Celery salt	0.02	9	
Salt, table	0.05	23	
Potatoes, raw, diced $1\frac{1}{2}$ "	3.78	1,716	4. Add carrots and potatoes. Cook until vegetables are slightly undercooked. Then add peas, heating to 180°F. *2
Carrots, raw, sliced $\frac{1}{2}$ "	3.78	1,716	
Peas, frozen	6.11	2,774	
Flour, rice	0.93	422	5. Mix flour with a small amount of water in a separate container to make a slurry. Turn off heat and slowly add slurry while stirring constantly. Cook 5 minutes at 200°F.
Topping mixture	5.00	2,270	6. Add deboned chicken and mix thoroughly. Heat contents to 180°F. Adjust volume to 6.25 gallons. *2 7. Fill foil containers with 8 ozs of chicken mix. *3 8. Add one or two cooked dough strip to panned chicken mixture. 9. Cover, mark and freeze.
Total	103.29	46,895	

CHICKEN POT PIEL-132NOTES:

1. Reheat covered in oven at 325°F until internal temperature reaches 160°F. Remove cover for 10 min. or until topping is browned.
2. Cooked deboned chicken may be substituted for the whole raw chickens at the rate of 1 lb. of cooked per 3 lbs. of raw whole chicken. Substitute 12 ozs. soup and gravy base (chicken) plus 22 lbs. water for chicken stock.
3. Freeze thaw stable starch may be used in lieu of rice flour.

CHICKEN POT PIE TOPPING

Ingredients	Pounds	Grams	Procedure
Flour, sifted, general purpose	2.33	1,058	1. Using a suitable mixer, blend the dry ingredients together.  2. Blend shortening into dry ingredients until mixture resembles coarse crumbs. Do not over mix.  3. Gradually add water and mix only enough to form a soft dough.  4. Place dough on lightly floured board, kneading lightly about 1 min. or until dough is smooth.  5. Roll out to uniform thickness of $\frac{1}{8}$ inch. *1  6. Cut into 1 inch strips approx. 6 inches long. *1  7. Bake for 15 min. in a preheated 425°F oven. *1, 2  8. When baked place strips over pot pie.
Milk, nonfat, dry	0.15	68	
Baking powder	0.10	45	
Salt, table	0.05	23	
Sugar, white, granulated	0.05	23	
Shortening	0.78	354	
Water	1.55	704	
Total	5.0	2,275	

- \*Critical Control Points:
1. Check preparation methods.
  2. Check temperature requirements and volume.
  3. Check for proper fill.



CHICKEN CACCIATOREL-130Yield: 100 PortionsEach Portion: 8 ounces

Ingredients	Pounds	Grams	Procedure
Chicken breasts, cooked deboned, defatted, diced	24.00	10,896	1. Remove fat and bone from breasts. Place 10 lbs. in each full size steam table pan, cover and cook in low pressure steam (7-10 psi) 170°F. internal temperature. *1 2. Cool slightly and dice $\frac{1}{2}$ inch by 1 inch pieces. Set aside for step 4.
Tomatoes, canned, crushed	10.50	4,767	3. Combine all ingredients except chicken in steam kettle, mix thoroughly and heat to a boil.
Tomato paste, canned	4.50	2,043	4. Add cooked diced chicken to season mixture, mix well and simmer for 15 minutes. *1
Mushrooms, drained, diced $\frac{1}{2}$ " x $\frac{1}{2}$ "	3.60	1,634	5. Bring volume of mixture back to 7 gal with hot water. *2
Water, tap, cold	21.00	9,534	6. Place 8 ozs in each foil pack container. *3
Soup and gravy base, chicken flavored	0.50	227	7. Cover, mark and freeze.
Salt, table	0.27	123	
Pepper, black	0.01	5	
Onions, dehydrated, sliced	0.30	136	
Thyme, ground	0.01	5	
Pepper, cayenne	0.01	5	
Allspice, ground	0.01	5	
Garlic powder	0.01	5	
Chili powder	0.09	41	
Flour, rice	0.70	318	
Total	65.51	29,744	

NOTES:

1. 2.4 pounds of fresh chopped onions may be substituted for dehydrated onions in step 3.
2. Formula makes 100 servings.
3. Reconstitute in oven covered at 350°F to an internal temperature of 160°F (35-40 minutes).
4. Whole chickens may be substituted for chicken breasts in step 1. Procedure is the same as listed except bone and skin is removed after cooking.
5. One 3 pound whole chicken will yield 1 pound of cooked, deboned, defatted, diced chicken meat.
6. Pre-cooked chicken rolls may be substituted for chicken in step 1.
7. Fresh or frozen chicken breasts should weigh at least 32 pounds to produce 24 pounds cooked, deboned, defatted and diced chicken as stated by formula.
8. Freeze thaw stable starch may be used in lieu of rice flour.

- \*Critical Control Points:
1. Check preparation methods.
  2. Check temperature and volume requirements.
  3. Check for proper fill.

COUNTRY STYLE CHICKEN (MARYLAND FRIED)L-135Yield: 100 PortionsEach Portion: 2 pieces chicken, 4 ounces gravyTemperature: 325°F oven, 360°F deep fat

Ingredients	Pounds	Grams	Procedure
Chicken, broiler, fryer, cut-up	50.00	22,700	1. Wash chicken pieces thoroughly under running water. Drain well.
Flour, wheat, general purpose	4.00	1,816	2. Dredge chicken in seasoned flour; shake off excess.
Salt, table	0.50	227	3. Deep fat fry at 360°F until brown (3-5 minutes). *1, 2
Pepper, black	0.02	9	
Paprika, ground	0.02	9	
Water, hot	8.00	3,632	4. Separate chicken pieces and place in individual full size steam table pans. Add 1 qt. of water to each pan.
			5. Cover pans and bake 45 min. or until chicken reaches an internal temperature of 165°F.*2
			6. Place two pieces of chicken in each foil container. Hold for Step 11.
Starch, Col Flo 67	0.75	341	7. Combine all ingredients together, mix well and add to steam kettle. Heat to 180°F.
Milk, nonfat, dry	0.75	341	Hold for Step 9.
Water or stock	28.00	12,712	
Soup and gravy base, chicken	0.75	341	
Shortening	1.80	817	8. Heat shortening in separate steam kettle, sprinkle flour evenly over shortening. Mix thoroughly and cook 5 minutes.
Flour, rice	1.50	681	9. Add starch, milk, soup and gravy mixture from Step 7 to flour, heat to 200°F, and cook 15 minutes with constant stirring.*2
			10. Bring volume back to 3.5 gallons with hot water.*3
			11. Place 4 ounces of gravy over chicken in each foil container.*4
			12. Cover, mark, and freeze.
Total	96.19	43,626	

COUNTRY STYLE CHICKEN (MARYLAND FRIED)

L-135

NOTES:

1. In step 3, chicken may be browned in oven at 400°F for 20 minutes.
2. Other types of milk may be used in step 7, such as whole white.
3. Reconstitute in oven covered at 325°F to an internal temperature of 160°F (35-40 minutes).
4. Freeze thaw stable starch may be used in lieu of rice flour.  
\*Critical Control Points:
  1. Check preparation methods.
  2. Check temperature requirements.
  3. Check volume.
  4. Check for proper fill.

OVEN FRIED CHICKENL-138Yield: 100 PortionsEach Portion: 2 piecesTemperature: 325°F oven

Ingredients	Pounds	Grams	Procedure
Chicken, broiler fryer, cut-up	50.00	22,700	1. Separate pieces of chicken into individual parts (wings, legs, thighs, breasts). Wash thoroughly. Drain well.
Milk, nonfat, dry	0.40	182	2. Reconstitute milk with water; add eggs and mix thoroughly. Dip chicken in egg mixture. Drain and save for step 4.
Water, cold, tap	2.75	1,249	Note: Do not hold dipped chicken over 30 min. before frying). *1
Eggs, whole, beaten	2.00	908	3. Combine flour, salt, pepper, paprika and bread crumbs, mix thoroughly.
Flour, wheat, general purpose	3.00	1,362	4. Dredge chicken in seasoned flour. Shake off excess.
Salt, table	0.50	227	5. Brown chicken in deep fat fryer at 365°F for 45 seconds or until brown. *2
Pepper, black	0.01	5	6. Place browned chicken in open pans and bake at 350°F in oven to an internal temperature of 165°F (45 min.). *2
Bread crumbs	5.00	2,270	7. Place two pieces in each foil pack container. *3
Paprika, ground	0.02	9	8. Cover, mark and freeze.
Total	63.68	28,912	

NOTE:

1. Reconstitute in 325°F oven to an internal temperature of 160°F. (35-40 minutes).
2. The following is a suggested method of panning: Breast leg, breast-leg, thigh-wing, thigh wing.

\*Critical Control Points: 1. Check preparation methods.  
2. Check temperature requirements.  
3. Check for proper fill.

ROAST TURKEY WITH GRAVYL-143Yield: 100 PortionsEach Portion: 4.5 oz turkey, 4.0 oz gravy

Ingredients	Pounds	Grams	Procedure
Turkey, boneless, cooked (Class A Roll)**	28.00	12,712	1. Slice turkey in 1/8" slices. 2. Place 4.5 oz of turkey per foil container. *1
<u>Gravy</u>			
Flour, rice	2.25	1,022	3. Mix all dry ingredients with water using a wire whip to blend.
Water, tap	25.00	11,350	4. Pour into steam kettle.
Soup and gravy base, chicken	0.75	341	5. Turn on steam and mixer, full speed. Heat to thicken flour rice ( 5 min. at 200°F). Adjust volume to 3.25 gals. *2
Pepper, black	0.01	5	6. Pour 4 oz gravy over panned meat. *3
Caramel coloring, powdered	1/	1	7. Cover, mark and freeze.
Total	56.01	25,431	

NOTES:

1. Reheat in oven at 350°F until product internal temperature is no less than 160°F.
2. Freeze-thaw stable starch may be used in lieu of rice flour. Use starch on a 50-50 basis with general purpose flour.

\*Critical Control Points: 1. Check for proper fill.  
2. Check temperature and volume requirements.  
3. Check for proper fill.

\*\*RTC Turkey Roll may be used @ 42 lbs instead of cooked turkey roll.

1/ 0.001 lb.

VEAL LOAF WITH BROWN GRAVYL-35-1Yield: 100 PortionsEach Portion: 6 ounces meat, 4 ounces gravyTemperature: 325°F oven

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Onions, dehydrated chopped	0.18	82	1. Rehydrate onions in excess water for 10 min. Drain.
Peppers, sweet, fresh, green, 1/8" chopped	0.50	227	2. Saute vegetables in shortening until lightly browned, cool slightly and add to step 3. *1
Celery, fresh, 1/8" chopped	1.00	454	
Shortening	0.50	227	
Veal, boneless, ground	20.00	9,080	3. Combine sauteed vegetables, bread crumbs, beef, eggs, seasonings and water in mechanical mixer. Mix lightly (enough to complete mixing).
Beef, boneless, ground	10.00	4,540	
Eggs, whole, beaten	1.30	590	
Salt, table	0.40	182	
Pepper, black	0.03	14	
Bread crumbs, dry	4.00	1,816	4. Place 1½ lbs. of veal loaf in greased bread pans (8½ x 4½ x 2-3/4 inches deep). *1
Water, tap	6.00	2,724	
Shortening	0.50	227	5. Heat in 325°F oven to an internal temperature of 165°F (1 hr., 20 min.). *2 Place in freezer or refrigerator to bring temperature down to 60°F and slice into 3 oz slices (9/16"). *3
			6. Place 2 slices to each foil container and hold for step 11.
<u>Gravy</u>			
Meat drippings and clear fat or shortening	1.50	681	7. Heat fat in steam kettle.
Flour, rice	1.50	681	8. Sprinkle flour evenly over fat and cook 10 min. with constant stirring.
Stock or water, cold	23.50	10,669	9. Combine stock or water and remaining ingredients together and heat to 200°F. Add mixture to fat and flour. Mix well and cook at 180°F for 15 min. *1, 2
Pepper, black	0.01	5	
Caramel coloring	0.01	5	
Soup and gravy base, beef	0.40	182	10. Adjust volume to 3.25 gals. with hot water. *4

VEAL LOAF WITH BROWN GRAVYL-35-1

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
			11. Pour 4 ounces of gravy over each pan of veal. *5
			12. Cover, mark and freeze.
<u>Total</u>	<u>71.33</u>	<u>32,386</u>	

NOTES:

1. 1.26 pounds of fresh onions may be used in step 1.
2. 1.50 ounces of dehydrated green peppers may be used in step 2.
3. Reconstitute in 325°F to an internal temperature of 160°F (35-40 minutes).
4. Bread dry broken may be substituted for bread crumbs as follows:  
place formula water from step 3 in broken bread and whip until large pieces are unidentifiable. Press out and discard excess water.
5. Freeze-thaw stable starch may be used in lieu of rice flour. Use starch on a 50-50 basis with general purpose flour.

- \*Critical Control Points:
1. Check preparation methods.
  2. Check temperature requirements.
  3. Check for proper weights.
  4. Check for volume.
  5. Check for proper fill.

MASHED POTATOES (INSTANT POTATOES)Q-57Yield: 100 PortionsEach Portion: 1 foil container 2/3 cup

Ingredients	Pounds	Grams	Procedure
Potatoes, white, instant	6.00	2,724	1. Blend potatoes and non-fat dry milk together. Set aside for use in step 3.
Milk, nonfat, dry	0.75	340	
Water, boiling	27.00	12,258	2. Add water, butter or margarine, and salt to mixer bowl. Stir to blend. 3. On low speed, rapidly add dry mixture to liquid; mix 1/2 minute. Stop machine and scrape down sides and bottom of bowl.
Butter or margarine	1.00	454	
Salt	0.12	57	
Pepper, black	0.01	5	4. Add pepper. Whip on high speed about 2 minutes or until light and fluffy. Do not over whip.
			5. Add approximately 6 oz. (2/3 cups) to each foil container.
			6. Cover, mark and freeze.
Total	34.88	15,838	

NOTES:

1. Consistency may be controlled by taking out 2 qts of the hot liquid before adding potatoes.
2. Add the 2 qts in step 4 during the whipping until proper consistency is obtained.
3. If potatoes become dry while standing, add hot milk or hot water and remix.
4. Reheat covered in oven at 325°F until internal temperature reaches 160°F.



O'BRIEN POTATOESQ-49Yield: 100 PortionsEach Portion: 1 foil container (5 oz)

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Potatoes, white, fresh quartered (1- $\frac{1}{2}$ x 1- $\frac{1}{2}$ x 1 inch) Antioxidant compound <u>1/</u>	35.00	15,890	1. Peel potatoes and rinse thoroughly. Trim as necessary. Keep submerged in water bath. Cut into quarters approximately 1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x 1 inch. (Keep potatoes submerged in antioxidant solution while not being processed). 2. Steam potatoes until almost but not completely cooked (approximately 10 min. at 5 to 7 pounds pressure). 3. Cool potatoes rapidly in a cold water bath to approx. 70°F. 4. Drain potatoes and dry thoroughly. 5. Fry in deep fat fryer at 375°F for 80 seconds. Set aside for use in step 7. *1
Peppers, sweet, fresh, finely chopped (1/8 inch)	1.00	454	6. Saute peppers and pimientos in shortening 5 min. or until tender.
Pimientos, canned, drained, finely chopped (1/8 inch)	0.33	150	
Shortening	0.50	227	
Salt	0.19	86	7. Add sauteed peppers and pimientos to potatoes. Sprinkle with salt and pepper and mix gently.
Pepper, black	0.01	5	8. Place 5 ozs of O'Brien potatoes in each foil container. 9. Cover, mark and freeze.
Total	37.03	16,812	

NOTES:

1. One (1) 7 oz can of pimientos will yield 5 $\frac{1}{4}$  ozs of pimiento pieces.
2. One (1) No. 2 $\frac{1}{4}$  can of pimientos will yield 20 ozs of pimiento pieces.
3. Reheat, uncovered in oven at 350°F until internal temperature reaches at least 160°F.

1/ Added at rate of 13 g. per gallon of water.

\*Critical Control Point: 1. Product temperature and time.

GLAZED SWEET POTATOESQ-67 (2)Yield: 100 PortionsEach Portion: 1 foil container (5oz)

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Potatoes, sweet, canned in syrup, drained	22.50	10,215	1. Place 2-3 pieces of drained sweet potatoes weigh- ing approximately 3.6 ozs (102 gm) in each foil con- tainer.
Butter or margarine	1.00	454	2. Add 4.5 gm (1/3 tbsp) butter over potatoes.
Sugar, brown	5.00	2,270	3. Place syrup (or water) in Hobart mixer bowl. Add brown sugar, salt and cornstarch.
Salt	0.09	41	Blend with wire whip.
Cornstarch	0.31	141	Transfer mixture to steam jacketed kettle at least 4-5 times the volume of the syrup mixture. (Syrup increases in volume 2-3 times when boiled.)
Syrup (Sweet Potato) or water	4.00	1,816	Bring to a boil, stirring constantly, and simmer 5 min. *1
			4. Add 45 gms (1½ tbsp) of the syrup to each foil con- tainer.
			5. Cover, mark and freeze.
Total	32.90	14,937	

NOTES:

1. Reheat, uncovered, in oven at 325°F until internal temperature reaches 160°F.  
\*Critical Control Point: 1. Product temperature and time.

# POTATOES AU GRATIN

Q-51

Yield: 100 Portions

Each Portion: 1 foil container 5 oz.

Ingredients	Pounds	Grams	Procedure
Potatoes, white, fresh, (in season) peeled, sliced 3/8" thick, blanched	35.00	15,890	1. Peel potatoes and rinse thoroughly. Trim as necessary. Keep submerged in water bath. Slice potatoes 5/16" $\pm$ 1/16" thick. Cut large potatoes (over 2" diameter) in half before slicing, so that no slice is over 2" in diameter. Keep potatoes submerged in antioxidant solution while not being processed. Steam blanch potato slices for 11 minutes or until just cooked, but not over cooked. Cool potatoes immediately to 50°F being careful to avoid damaging them. Drain potatoes thoroughly. 2. Place approximately 5 oz potatoes in each foil container.
Antioxidant compound 1/ Water, cold	8.30	3,768	
Water	9.30	4,222	3. Blend dry ingredients in Hobart mixer on slow speed with flat beater. Gradually add water to form a smooth slurry. Transfer slurry to steam jacketed kettle, add butter, heat under low steam until slurry thickens, stirring constantly. Simmer 5 minutes. Turn off steam valve and blend in reconstituted milk and ground cheese. Run cold water through kettle jacket and cool sauce to 70°F *1 stirring constantly.
Flour, general purpose, sifted	0.75	341	
Salt	0.13	59	4. Add 2½ oz (1/4 cup) of sauce to each foil container.
Mustard, ground	0.00	2	
Butter	1.50	681	
Cheese, cheddar, ground	3.00	1,362	
Milk, nonfat, dry	1.25	568	
	2.00	908	

POTATOES AU GRATINQ-51

Ingredients	Pounds	Grams	Procedure
Bread crumbs, dry	2.00	908	5. Melt butter, Blend in crumbs. Turn off heat. Add cheese and mix. Sprinkle 1 tbsp of mixture over potatoes in each foil container. 6. Cover, mark and freeze.
Butter, melted	1.00	454	
Cheese, cheddar, ground	1.00	454	
Total	65.23	29,617	

NOTES:

1. 45 lb of white potatoes A. P. yields 35 lbs peeled potatoes. Seven lbs of potatoes, dehydrated, sliced may be substituted for potatoes, white, fresh.
2. Preparation: Reheat covered in oven at 325°F until internal temperature reaches 160°F.

1/ Added at rate of 13 g. per gallon of water.

\*Critical Control Point: 1. Product temperature.

FRENCH FRIED POTATOESQ-45Yield: 100 PortionsEach Portion: 1 foil container (5 oz)

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Potatoes, French fried frozen	35.00	15,890	1. Fry frozen French fried potatoes in deep fat fryer at 375°F for 3 minutes or until golden brown. (Fill fry basket 1/3 full). *1 2. Drain well in basket or on absorbent paper.
Salt	0.13	59	3. Sprinkle potatoes with salt. 4. Place approximately 5 oz in each foil container. 5. Cover, mark and freeze.
<u>Total</u>	<u>35.13</u>	<u>15,949</u>	

NOTES:

1. Reheat uncovered in oven at 350°F until internal temperature reach 160°F.

\*Critical Control Point: 1. Product temperature and time and volume.

MASHED SWEET POTATOESQ-69Yield: 100 PortionsEach Portion: 1 foil container 2/3 cup

Ingredients	Pounds	Grams	Procedure
Milk, nonfat, dry	0.41	186	1. Reconstitute milk in mixer bowl.
Water, warm	0.88	400	
Potatoes, sweet, canned	22.50	10,215	2. Add sweet potatoes; heat on low speed until free from lumps.
Salt	0.13	59	3. Add remaining ingredients; blend on medium speed.
Butter or margarine, melted	1.00	454	
Sugar, granulated	0.50	227	4. Scrape down bowl; beat on high speed 2 minutes or until potatoes are smooth.
			5. Place 2/3 cup in each foil container.
			6. Cover, mark and freeze.
Total	25.42	11,541	

NOTES:

1. Other types of milk may be used in step 1. See Recipe Card A-9.
2. Reheat covered in oven at 325°F until internal temperature reaches 160°F.

BUTTERED MIXED VEGETABLESQ-G-3Yield: 100 PortionsEach Portion: 1 foil container  
1/2 Cup

<u>Ingredient</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Vegetables, mixed, frozen	20.00	9,080	1. Tap packages of mixed vegetables lightly to break up solid blocks. Place vegetables in jet steamer; cook at 5 lb pressure for 5 to 8 minutes or until tender.
Butter or margarine, melted	1.00	454	2. Season with melted butter or margarine, toss lightly. 3. Place 1/2 cup in each foil container. 4. Cover, mark and freeze.
<u>Total</u>	<u>21.00</u>	<u>9,534</u>	

NOTES:

1. Reheat covered in oven at 325°F until internal temperature reaches at least 160°F.

BUTTERED PEASQ-G-3Yield: 100 PortionsEach Portion: 1 foil container  
1/2 Cup

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Peas, frozen	20.00	9,080	1. Tap packages of peas lightly to break up solid blocks. Place peas in jet steamer; cook at 5 lb pressure for 5 to 8 min. or until just tender.
Butter or margarine, melted	1.00	454	2. Season with melted butter or margarine. Toss lightly. 3. Place 1/2 cup in each foil container. 4. Cover, mark and freeze.
Total	21.00	9,534	

NOTES:

1. Reheat covered in oven at 325°F until internal temperature reaches 160°F.



BUTTERED PEAS AND CARROTSQ-G-3Yield: 100 PortionsEach Portion: 1 foil container 1/2 Cup

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Peas, carrots, frozen	20.00	9,080	1. Tap packages lightly to break up solid blocks. Place peas and carrots in jet steamer; cook at 5 lb pressure for 5 to 8 minutes until tender.
Butter or margarine, melted	1.00	454	2. Season with melted butter or margarine. Toss lightly. 3. Place 1/2 cup in each foil container. 4. Cover, mark and freeze.
<u>Total</u>	<u>21.00</u>	<u>9,534</u>	

NOTES:

1. Reheat covered in oven at 325°F until internal temperature reaches 160°F.

BUTTERED GREEN BEANSQ-G-3Yield: 100 PortionsEach Portion: 1 foil container 1/2 cup

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Beans, green, frozen	20.00	9,080	1. Tap packages of green beans lightly to break up solid blocks. Place green beans in jet steamer; cook at 5 lb pressure for 5 to 8 minutes or until just tender.
Butter or margarine, melted	1.00	454	2. Season with melted butter or margarine. Toss lightly.
			3. Add 1/2 cup to each foil container.
			4. Cover, mark and freeze.
Total	21.00	9,534	

NOTES:

1. Reheat covered in oven at 325°F until internal temperature reaches 160°F.

BUTTERED WHITE GRAIN CORNQ-G-3Yield: 100 PortionsEach Portion: 1 foil container 1/2 cup

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Corn, whole grain, frozen	20.00	9,080	1. Tap packages of corn lightly to break up solid blocks. Place corn in jet steamer; cook at 5 lb pressure for 5 to 8 minutes or until just tender.
Butter or margarine, melted	1.00	454	2. Season with melted butter or margarine. Toss lightly. 3. Place 1/2 cup in each foil container.
			4. Cover, mark and freeze.
<u>Total</u>	<u>21.00</u>	<u>9,534</u>	

NOTES:

1. Reheat covered in oven at 325°F until internal temperature reaches 160°F.

BUTTERED LIMA BEANSQ-G-3Yield: 100 PortionsEach Portion: 1 foil container 1/2 cup

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Beans, lima, frozen	20.00	9,080	1. Tap packages of lima beans lightly to break up solid blocks. Place lima beans in jet steamer; cook at 5 lb pressure for 5 to 8 minutes or until just tender.
Butter or margarine, melted	1.00	454	2. Season with melted butter or margarine. Toss lightly. 3. Place 1/2 cup in each foil container. 4. Cover, mark and freeze.
<u>Total</u>	<u>21.00</u>	<u>9,534</u>	

NOTES:

1. Reheat covered in oven at 325°F until internal temperature reaches 160°F.

BUTTERED SUCCOTASHQ-G-3Yield: 100 PortionsEach Portion: 1 foil container 1/2 cup

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Succotash, frozen	20.00	9,080	1. Tap packages lightly to break up solid blocks. Place succotash in jet steamer; cook at 5 lb pressure for 5 to 8 minutes or until just tender.
Butter or margarine, melted	1.00	454	2. Season with melted butter or margarine. Toss lightly. 3. Place 1/2 cup in each foil container. 4. Cover, mark and freeze.
<u>Total</u>	<u>21.00</u>	<u>9,534</u>	

NOTES:

1. Reheat covered in oven at 325°F until internal temperature reaches 160°F.

BAKED MACARONI AND CHEESEF-1 (2)Yield: 100 PortionsEach Portion: 1 foil container 1 cup (5 oz)

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Macaroni	5.00	2,270	1. Add macaroni slowly to 4 gallons of salted water containing 114 g. of salt and boil 15 min. or until tender; stir occasionally to prevent sticking.
Water, boiling			2. Drain. Rinse, if macaroni is starchy. Set aside for use in step 7.
Salt			3. Reconstitute milk; heat to just below boiling. DO NOT BOIL. *1
Milk, nonfat, dry	2.00	908	4. Blend butter or margarine and flour together; stir until smooth. Add roux to hot milk, stirring constantly.
Water, warm	20.75	9,307	5. Add salt and pepper. Bring mixture to a boil; reduce heat and simmer 5 min. or until thickened. Stir frequently to prevent scorching.
Butter or margarine, melted	1.50	681	6. Add cheese to sauce; stir only until smooth.
Flour, wheat, general purpose, sifted	1.13	513	7. Combine sauce and macaroni; mix gently.
Salt	0.25	114	8. Place approx. 6 oz (1 cup) in each foil container.
Pepper, black	0.02	9	9. Combine bread crumbs and melted butter or margarine; sprinkle over mixture in each foil container.
Cheese, ground	5.00	2,270	10. Cover, mark and freeze.
Bread crumbs, dry	1.00	454	
Butter or margarine, melted	0.50	227	
Total	37.15	16,753	

NOTES:

1. Reheat, uncovered in oven at 325°F until internal temperature reaches 160°F.

\*Critical Control Point: 1. Do not boil.

BOSTON BAKED BEANSQ-3Yield: 100 PortionsEach Portion: 1 foil container 3/4 cup

Ingredients	Pounds	Grams	Procedure
Beans, kidney, lima, or white dry	16.00	7,264	1. Wash beans thoroughly. 2. Cover with 5 gallons of cold water, bring to a boil; boil 2 minutes; turn off heat. 3. Cover and let soak 1 hour or if more convenient, cool and let beans soak overnight in refrigerator.
Water, hot		to cover	4. Bring beans to a boil; add water to cover beans if necessary. Simmer 1½ hours or until beans are just tender.
Salt	0.38	170	5. Combine all ingredients. Add to beans, mix thoroughly.
Sugar, brown	2.00	908	6. Place approximately 5 oz in each foil container. Bake 3 to 4 hours in covered pans at 350°F.
Mustard, ground	0.13	57	*1 Cover may be removed for the last hour to allow beans to brown. (Add hot water periodi- cally if necessary to keep beans moist).
Molasses	3.00	1,362	7. Cover, mark and freeze.
Bacon, chopped	3.00	1,362	
Vinegar	0.25	114	
Total	24.76	11,237	

NOTES:

1. Reheat covered in oven at 325°F until internal temperature reaches 160°F.

\*Critical Control Point: 1. Product temperature and time.

STEAMED RICEE-5Yield: 100 PortionsEach Portion: 1 foil container 3/4 cup

Ingredients	Pounds	Grams	Procedure
Rice	10.00	4,540	1. Combine all ingredients; bring to a boil. Stir occasionally. 2. Cover tightly and simmer 25 minutes. DO NOT STIR. *1 If rice is not tender, continue cooking 2 to 3 minutes longer. 3. Uncover and allow rice to steam dry 5 to 7 minutes. 4. Place 3/4 cup of rice in each foil container. 5. Cover, mark and freeze.
Water, cold	24.9	11,305	
Salt	0.25	114	
Salad oil	0.25	114	
Butter - For buttered rice, add one patty to each container.			
Total	35.40	16,073	

NOTES:

1. Rice may be cooked in a 350°F oven. Substitute boiling water for cold water, place all ingredients in shallow pans; stir, cover and bake 30 to 40 minutes.
2. Rice may be cooked in a sectional steamer. Use only 2 1/4 gallon of boiling water; place all ingredients in steamer pan; stir and steam approximately 20 minutes.
3. Chicken or beef stock may be substituted for water. If Soup and Gravy base, beef or chicken, is used, decrease salt to 0.125 lb (57 g).
4. Reheat covered in oven at 325°F until internal temperature reaches 160°F.

\*Critical Control Point: 1. Do not stir.



SIMMERED DRY BEANSQ-5

(kidney, lima, pinto and white)  
(black-eyed peas)

Yield: 100 PortionsEach Portion: 1 foil container 1/2 cup

Ingredients	Pounds	Grams	Procedure
Black-eyed peas	8.00	3,632	1. Pick over and wash beans thoroughly.
Beans, kidney, lima, pinto, or white, dry	20.00	9,080	2. Cover peas and beans with 5 gallons of cold water; bring to a boil; boil 2 minutes. Turn off heat
Bacon, chopped	2.00	908	3. Add bacon, seasonings and water to beans.
Salt	0.16	71	4. Bring to boil; cover.
Pepper, black	0.02	9	Simmer 1½ hours or until beans are tender, but not mushy.
Water	As required		Add boiling water if beans become dry.
			5. Place approximately 4 oz (1/2 cup) of finished product in each foil container.
			6. Cover, mark and freeze.
Total	30.18	13,700	

NOTES:

1. Reheat covered in oven at 325°F until internal temperature reaches 160°F.

BROWNIES, CHOCOLATE

Yield: 100 Portions

Each Portion: 1 Brownie

<u>Ingredients</u>	<u>Pounds</u>	<u>Grams</u>	<u>Procedure</u>
Brownie Mix	15.00	6,810	1. Place contents of 3 No. 10 cans of mix, including soda from the packets, into a mixing bowl. Mix in soda for 1 minute on low speed.
Water	3.00	1,362	2. Add water and mix on low speed for 1 minute. Scrape bowl. Mix on medium speed 2 minutes.
Nuts, chopped	2.25	1,022	3. Mix in nuts for 30 seconds on low speed. 4. Deposit 3 oz of batter into each greased small foil container. 5. Bake approximately 20 min. at 350°F (176.7°C). 6. Cool, cover, mark and freeze.
Total	20.25	9,194	

NOTE:

Let thaw at room temperature.

### DEVIL'S FOOD CAKE WITH BUTTER CREAM FROSTING

Yield: 100 Portions

Each Portion: 1 Cake

Ingredients	Pounds	Grams	Procedure
Cake Mix, devil's food	10.00	4,540	<ol style="list-style-type: none"><li>1. Place contents of 2 No. 10 cans of cake mix, including soda from packets, into a mixing bowl. Mix in soda for 1 minute on low speed.</li><li>2. Add 1/2 amount of water. Mix 1 minute on low, scrape bowl. Mix 2 minutes on medium.</li><li>3. Add remaining water. Mix 1 min. on low, scrape bowl. Mix 2 min. on medium.</li><li>4. Scale 2 oz (56.7g) batter into each small foil container.</li><li>5. Bake at 365°F (185°C) for approx. 15 min. All to cool before icing.</li><li>6. Cream butter or margarine on medium speed for 3 min.</li><li>7. Sift together sugar, salt, and milk; add to creamed mixture. Mix 1 min. on low speed.</li><li>8. Combine water and vanilla; add slowly to creamed mixture while beating at low speed. Beat until moisture is absorbed. Scrape bowl. Beat at medium speed 5 minutes.</li><li>9. Spread icing over each individual cake.</li><li>10. Cover, mark and freeze.</li></ol>
Water	4.75	2,157	
Butter or margarine	1.25	568	
Sugar, powdered, sifted	4.75	2,157	
Salt	0.01	5	
Milk, nonfat, dry	0.13	59	
Water	0.37	168	
Vanilla	0.06	27	
Total	21.32	9,681	

**NOTE:**

Let thaw at room temperature.

PINEAPPLE UPSIDE DOWN CAKE

Yield: 100 Portions

Each Portion: 1 Cake

Ingredients	Pounds	Grams	Procedure
Butter	1.50	681	1. Beat butter and sugar for 5 min. on medium speed.
Brown sugar	3.00	1,362	2. Place approximately 3/4 oz (21 g) of this mixture into each small foil container.
Pineapple, crushed, canned, drained	6.00	2,724	3. Place 1 oz (28.4 g) drained pineapple evenly over the sugar mixture in each container.
Cake Mix, yellow	10.00	4,540	4. Place contents of 2 No. 10 cans of cake mix, including soda from packets, into a mixing bowl. Mix in soda for 1 minute on low speed.
Water	4.75	2,157	5. Add 1/2 amount of water. Mix 1 min. on low, scrape bowl. Mix 2 min. on medium.
			6. Add remaining water. Mix 1 minute on low, scrape bowl. Mix 2 minutes on medium.
			7. Pour 1.5 oz (42.5 g) of the batter over the fruit in each small foil container.
			8. Bake at 375°F for approx. 20 minutes.
			9. Let cool. Cover, mark, and freeze.
Total	25.25	11,464	

NOTE:

Let thaw at room temperature.

# APPLE COFFEE CAKE

Yield: 100 Portions

Each Portion: 1 Cake

Ingredients	Pounds	Grams	Procedure
Sweet Dough Mix	4.50	2,043	1. Add contents of yeast packet to the warm water. Allow the yeast to soak 4 min. then stir until dissolved. 2. Place sweet dough mix into mixing bowl. Add the rehydrated yeast suspension. Using a dough hook, mix on low speed until a dough is formed. Mix on medium speed to full development (approximately 10 minutes). 3. Remove the dough from the mixing bowl to a table dusted with general purpose flour. Wash and grease the mixing bowl. Round-up dough dusting with flour, if necessary. 6. Replace dough in the greased bowl, cover bowl with damp cloth or paper and allow to ferment at 80°F (26.7°C) for approximately 1½ hour or until double in bulk. 7. After fermentation, scale dough into 100 portions, each weighing 1 oz (28.4 g). 8. Roll each piece of dough to fit into the small greased foil containers.
Warm water (110°F) (43.3°C)	1.75	795	
Eggs, whole, beaten	0.12	55	9. Combine egg and milk. Brush mixture over dough in each container. 10. Proof at 90° to 100°F (32.2° to 37.8°C) until double in bulk (approximately 1½ hour.
Milk, evaporated, undiluted	0.12	55	

# APPLE COFFEE CAKE

Ingredients	Pounds	Grams	Procedure
Cinnamon, ground	0.01	5	11. Mix dry ingredients for topping.
Mace, ground		2	
Milk, nonfat, dry	0.01	7	
Sugar, granulated	3.00	1,362	
Starch, freeze-thaw stable	0.28	128	
Apples, canned, sliced	6.00	2,724	12. Add butter and apples to ingredients from step 11 and mix well.
Butter, melted	0.25	114	13. Place 1.5 oz (42.5 g) mixture over dough in each container.
			14. Bake approximately 15 minutes at 375°F (190.6°C).
			15. Cool, cover, mark and freeze.
Total	16.04	7,290	

## NOTE:

Let thaw at room temperature.

# FRENCH QUICK COFFEE CAKE

Yields 100 Portions

Each Portion: 1 Cake

Ingredients	Pounds	Grams	Procedure
Raisins	2.00	908	1. Soak raisins in hot water for 10 minutes. Drain and cool. Set aside for step 5.
Water, hot	Enough to cover raisins		
Cake Mix, yellow	10.00	4,540	2. Place contents of 2 No. 10 cans of cake mix, including soda from packets and nutmeg, into a mixing bowl. Mix for 1 minute on low speed. 3. Add 1/2 amount of water. Mix 1 minute on low speed, scrape bowl. Mix 2 minutes on medium. 4. Add remaining water. Mix 1 minute on low speed, scrape bowl. Mix 2 minutes on medium.
Nutmeg, ground	0.03	14	
Water	4.75	2,157	
Nuts, chopped	1.50	681	5. Add nuts and drained, cooled raisins from step 1 to cake batter. Mix 30 seconds on low speed.
			6. Scale 2.5 oz (70.9 g) batter into each small foil container. Set aside for use in step 8.
Flour, general purpose	1.50	681	7. Combine ingredients; mix to a coarse crumb. 8. Sprinkle approximately 0.5 oz (14.2 g) mixture over the batter in each container reserved from step 6. 9. Bake at 365°F (180°C) for approximately 15 minutes.
Cinnamon, ground	0.02	9	
Salt	0.01	5	
Sugar, brown	0.75	341	
Butter or margarine, melted	0.75	341	10. Combine ingredients; mix until smooth. 11. Dribble approx. 1/3 oz (9.4 g) over cake in each pan while still hot. Do not attempt to spread the icing with a spatula for the cake will crumble.
Butter or margarine	0.13	59	
Sugar, powdered	2.00	908	
Vanilla	0.01	5	
Water, boiling	0.37	168	

FRENCH QUICK COFFEE CAKE

Ingredients	Pounds	Grams	Procedure
			12. Allow the cakes to cool at room temperature.
			13. Cover, mark, and freeze.
Total	23.82	10,817	

NOTE:

Let thaw at room temperature.



### CHOCOLATE CHIP COOKIES

Yield: 100 Portions

Each Portion: 2 Cookies

Ingredients	Pounds	Grams	Procedure
Flour, general purpose, sifted	3.25	1,476	1. Sift together flour and salt. Set aside for use in step 5.
Salt	0.06	27	
Butter or margarine	0.25	114	2. Using beater on medium speed, cream butter or margarine, shortening and vanilla. Gradually add sugars and mix 3 minutes or until light. Scrape down bowl.
Shortening	1.75	795	
Vanilla	0.03	14	
Sugar, brown	1.50	681	
Sugar, granulated	2.00	908	
Eggs, whole	1.00	454	3. Add eggs gradually to creamed mixture. Blend thoroughly.
Baking soda	0.04	18	4. Dissolve soda in water; add gradually to creamed mixture. Blend thoroughly.
Water, warm	0.06	27	
			5. Add flour; mix only until ingredients are combined.
Chocolate, cooking semisweet chips	2.25	1,022	6. Add chocolate chips and mix until evenly distributed.
			7. Drop by tablespoons in rows, 4 by 6, on ungreased pans.
			8. Bake 12 to 15 minutes at 375°F (190.6°C).
			9. Loosen cookies from pans while still warm.
			10. When cool, place 2 cookies in each large foil container.
Total	12.19	5,536	

**NOTE:**

Let thaw at room temperature.

### OATMEAL COOKIES

Yield: 100 Portions

Each Portion: 2 Cookies

Ingredients	Pounds	Grams	Procedure
Cookie Mix, oatmeal	10	4,540	1. Place contents of two No. 10 cans of mix in mixing bowl, including soda from the packets. Mix in soda for 1 minute on low speed.
Water	1	454	2. Add water and mix 1 min. on low speed. 3. Divide dough into 10 pieces, each weighing about 1 lb (454 g). Form each piece into a roll and cut into 20 slices. 4. Place slices in rows 5x7 on greased sheet pans. Bake approximately 12 minutes at 375°F (190.6°C). Remove from pans while warm. 5. After cooling, place 2 cookies in each large foil container. 6. Cover, mark and freeze.
Total	11	4,994	

NOTE:

Let thaw at room temperature.

DANISH PASTRY, CHERRY

Yield: 100 Portions

Each Portion: 1 Piece

Ingredients	Pounds	Grams	Procedure
Cherries, canned, red, sour, pitted	6.44	2,924	1. Drain and mash cherries.
Sugar, granulated	3.00	1,362	2. Add sugar; bring to a boil; boil 10 min. Cool and set aside for use in step 17.
Sweet Dough Mix	18.00	8,172	3. Add contents of yeast packets to the warm water. Allow the yeast to soak 4 min. and then stir until dissolved.
Warm water (110°F) (43.3°C)	7.00	3,178	4. Place sweet dough mix into mixing bowl. Add the rehydrated yeast suspension. Using a dough hook, mix on low speed until a dough is formed. Mix on medium speed to full development (approx. 10 minutes.).
			5. Remove the dough from the mixing bowl to a table dusted with bread flour. Wash and grease the mixing bowl. Round up dough, dust- ing with flour, if necessary.
			6. Replace dough in the greased bowl, cover bowl with damp cloth or paper, and allow to ferment at 80°F (26.7°C) for approximately 1½ hour or until double in bulk.
			7. After fermentation, divide dough into 4 pieces, each weighing about 6¼ pounds (2.83 Kg.).

# DANISH PASTRY, CHERRY

Ingredients	Pounds	Grams	Procedure
Butter, melted	1.00	454	<p>8. Roll each dough piece into a rectangle about 1/2 inch (1.3 cm) thick. Brush melted butter over 2/3 of the top of each piece. Fold the 1/3 without the butter over the center 1/3. Fold the remaining 1/3 over the other 2 layers.</p> <p>9. Reroll dough into another rectangle and repeat step 8. Place folded dough on sheet pans, cover, and chill 1/2 hour.</p> <p>10. Repeat steps 8 and 9 but do not chill again. Roll the dough into a rectangle 10 inch (25.4 cm) wide and 3/4 inch (1.9 cm) thick. Cut each dough piece into 24 strips.</p> <p>11. Roll each strip into a long slender rope. Coil each rope onto a greased sheet pan in rows 4 x 6.</p>
Eggs, whole, beaten	0.25	114	12. Combine eggs and milk. Brush over rolls prepared in step 11.
Milk, evaporated, undiluted	0.25	114	<p>13. Proof pastry at 90° to 100° F (32.2° to 37.8° C) until double in bulk (approximately 1/2 hour)</p> <p>14. Bake at 400° F (204.5° C) approximately 15 minutes.</p>
Corn syrup	0.37	170	15. Combine ingredients.
Water	0.25	114	<p>Bring to a boil, stirring constantly. Boil 5 minutes.</p> <p>16. Brush pastry while still hot with glaze prepared in step 15.</p>

DANISH PASTRY, CHERRY

Ingredients	Pounds	Grams	Procedure
			17. Apply cherry filling prepared in step 2 with a pastry bag.
Cinnamon, ground	0.05	23	18. Mix dry ingredients.
Flour, general purpose	1.00	454	Add butter or margarine and blend to form coarse crumbs.
Salt	0.01	5	19. Sprinkle approximately 1 TB mixture over each
Sugar, brown	0.25	114	pastry.
Sugar, granulated	0.75	341	20. Allow pastry to cool, then place 1 in each large
Butter or margarine	0.63	286	foil container.
			21. Cover, mark, and freeze.
Total	39.25	17,825	

NOTE:

Let thaw at room temperature.

### CHERRY PIE

Yield: 100 Portions

Each Portion: 1 Pie

Ingredients	Pounds	Grams	Procedure
Flour, general purpose	8.00	3,632	1. Sift flour into mixing bowl.
Shortening	7.00	3,178	2. Add shortening. Mix on low speed about 1/2 minute.
Water, cold	2.50	1,135	3. Dissolve salt in water and add to flour mixture.
Salt	.07	32	Mix on low speed about 1 min. or just until dough is formed.
			4. Chill dough 1 hour or longer for ease in handling.
			5. For each pie, roll out 1.5 oz (42.5 g) dough and fit into each small foil container. Set aside for use in step 12.
Cherries, canned, red, sour, pitted	12.88	5,848	6. Thoroughly drain cherries; set aside for use in step 10. Reserve juice for use in step 8.
Starch, freeze-thaw stable	0.50	227	7. Combine cornstarch and water. Stir until smooth.
Water, cold	0.75	341	
Juice, cherry	1.75	795	8. Bring juice to a boil. Add starch mixture gradually to boiling juice; cook until thick and clear, stirring constantly.
Sugar	3.50	1,589	9. Combine sugar and salt.
Salt	0.02	9	Stir gradually into thickened mixture, stirring constantly. Bring to a boil. Turn off heat.
Food coloring, red (optional)	0.01	5	10. Add red coloring to thickened mixture. Carefully fold cherries into thickened mixture.
			11. Cool before using.

### CHERRY PIE

Ingredients	Pounds	Grams	Procedure
			12. Fill each individual pie pan reserved from step 5 with 2.5 oz (70.9 g) cherry filling.
			13. For the top crust, roll out 1 oz (28.4 g) dough for each pie. Fit into pie pan and crimp edges.
			14. Bake at 425°F for 25 minutes.
			15. Let cool, then cover, mark and freeze.
Total	36.98	16,791	

**NOTE:**

To thaw, remove foil lid and bake 15 minutes at 350°F.

### CINNAMON PECAN ROLLS

Yield: 200 Rolls

Each Portion: 2 Rolls

Ingredients	Pounds	Grams	Procedure
Butter, softened	1.00	454	1. Spread 4 sheet pans each with 1/2 cup (113.4 g) softened butter. 2. Sprinkle each pan with 1/2 lb (227 g) brown sugar and 6 oz (168 g) nuts. Set aside for step 12.
Sugar, brown	2.00	908	
Pecans, shelled, chopped	1.50	681	
Sweet Dough Mix	13.50	6,129	3. Add contents of yeast packets to the warm water. Allow the yeast to soak 4 min. then stir until dissolved. 4. Place sweet dough mix into mixing bowl. Add the rehydrated yeast suspension. Using a dough hook, mix on low speed until a dough is formed. Mix on medium speed to full development (approx. 10 min.) 5. Remove the dough from the mixing bowl to a table dusted with bread flour. Wash and grease the mixing bowl. Round up dough, dusting with flour, if necessary. 6. Replace dough in the greased bowl, cover bowl with damp cloth or paper and allow to ferment at 80°F (26.7°C) for approx. 1½ hour or until double in bulk. 7. After fermentation, divide dough into 4 pieces, each weighing 4.75 lbs (1.93 Kg). Round up and let rest 15 minutes.
Warm water (110°F) (43.3°C)	5.25	2,384	



### CINNAMON PECAN ROLLS

Ingredients	Pounds	Grams	Procedure
			8. Roll each piece of dough into a rectangle about 14 x 40 inches (35.6x101.6 cm).
Butter, melted	0.25	114	9. Brush each dough sheet with about 1/8 cup (28.3 g) melted butter.
Cinnamon, ground	0.02	9	10. Combine cinnamon and sugar. Sprinkle 4 oz (113.5 g) mixture over each buttered dough sheet.
Sugar, brown	1.00	454	
			11. Roll up each sheeted dough piece to make a long slender roll. Elongate to 40 inches (101.6 cm). Slice each roll into 54 pieces.
			12. Place rolls on sheet pans prepared in step 2 in rows 6 x 9.
Eggs, whole, beaten	0.25	114	13. Combine eggs and milk. Brush over rolls prepared in step 12.
Milk, evaporated, undiluted	0.25	114	
			14. Proof rolls at 90° to 100°F (32.2° to 37.8°C) until double in bulk.
			15. Bake at 400°F (204.5°C) approx. 15 min.
			16. After baking, invert panned rolls so nuts will be on top of rolls.
			17. Place 2 rolls into each large foil container.
			18. Cover, mark and freeze.
Totals	25.02	11,361	

**NOTE:**

Let thaw at room temperature.

<u>Name</u>	<u>Largest Quantity Lbs</u>	<u>Federal Stock Number</u>	<u>Specification Number</u>
Bacon, Slab	70.0	8905-00-551-9908	FED-PP-B-0081 (Army - GL)
Beef, Boneless			
a) Diced	55.0	8905-00-151-6580	MIL-B-0035079 (GL)
b) Oven Roasts	55.0	8905-00-151-6577	MIL-B-0035079 (GL)
c) Pot Roasts	55.0	8905-00-151-6585	MIL-B-0035079 (GL)
d) Swiss Steaks	55.0	8905-00-151-6578	MIL-B-0035079 (GL)
e) Grill Steak		8905-00-151-6576	MIL-B-0035079 (GL)
Beef, Boneless Ground, Bulk	50.0	8905-00-285-2075	MIL-B-003854 (GL)
Beef, Corned Canned	6.0	8905-00-127-3148	FED-PP-B-201
Beef, Corned Bulk, Frozen	60.0	8905-00-299-1316	FED-PP-B-196
Beef Liver, Slices	12.0	8905-00-655-8410	MIL-B-35047
Chicken			
a) Cut-up	15.0	8905-00-965-2128	FED-PP-C-248
b) Whole	54.0	8905-00-126-3416	FED-PP-C-248
Chicken Breasts	15.0	8905-00-582-1393	FED-PP-C-248
Frankfurters	60.0	8905-00-616-0050	FED-PP-F-660
Lamb Roast	30.0	8905-00-926-1599	MIL-L-43510
Ham, Canned, Whole Pullman	80.0	8905-00-410-4670	FED-PP-H-61
Perch, Frozen, Fillets	50.0	8905-00-164-0485	FED-PP-F-381
Pork, Boneless			
a) Diced	50.0	8905-00-753-6503	MIL-P-43148
b) Loin	20.0	8905-00-935-0618	FED-PP-00571 (Army - GL)
c) Slices	50.0	8905-00-753-6569	MIL-P-35098
Pork, Spareribs			
Country	12.0	8905-00-491-7209	FED-PP-P-00571 (Army - GL)
Pork, Sausage			
a) Frozen Links	60.0	8905-00-926-6767	FED-PP-P-00630 (Army - GL)
b) Frozen Bulk	12.0	8905-00-926-6485	FED-PP-P-00630 (Army - GL)

<u>Name</u>	<u>Largest Quantity Lbs.</u>	<u>Federal Stock Number</u>	<u>Specification Number</u>
Polish Sausage	Special Order		
Salmon, Canned	1.0	8905-00-543-7941	FED-PP-S-31
Scallops, Frozen	50.0	8905-00-164-6847	MIL-S-3642
Tuna, Canned	4.0	8905-00-935-3161	FED-PP-T-771
Turkey			
a) Raw, Boneless, Frozen	60.0	8905-00-262-7274	MIL-T-16660
b) Roll, Cooked	60.0	8905-00-582-4042	MIL-T-16660
Veal, Boneless			
Roasts, Ground, Slices	50.0	8905-00-616-0031	MIL-V-43299

# RAW MATERIAL SPECIFICATIONS

## DAIRY, EGG AND CONDIMENTS

<u>Name</u>	<u>Largest Quantity</u>	<u>Federal Stock Number</u>	<u>Specification Number</u>
Baking Powder	1.0	8950-00-125-6333	FED-EE-B-25
Bread			
a) Crumbs	50.0	8920-00-141-0136	
b) Dry		Special Order	
Butter	1.0	8910-00-616-0038	FED-C-B-00801 (Army - GL)
Catsup, Tomato	#10 Can	8950-00-127-9789	FED-JJJ-C-91
Cheese			
a) Cheddar, Natural	70.0	8910-00-125-8440	FED-C-C-271
b) Cottage	18.0	8910-00-126-3406	FED-C-C-281
c) Mozzarella	40.0	8910-00-782-2837	MIL-C-35088
d) Parmesan, grated	1.0	8910-00-782-3765	FED-C-C-285
Corn Starch	1.0	8910-00-160-6165	FED-N-C-541
Cookies, Ginger Snap	12.0	8920-00-223-5413	FED-EE-C-651
Col-Flo 67		Special Order	
Eggs, Whole, Frozen	30.0	8910-00-127-8252	MIL-E-1037
Eggs, Whole, Fresh	30.0	8910-00-222-0539	FED-C-E-271
Flour, Wheat, Hard	100.0	8920-00-125-9423	FED-N-F-481
Food Coloring, Caramel	16.oz.	8950-00-782-2181	MIL-F-35093
Hot Sauce	6 oz.	8950-00-926-9939	MIL-H-35021
Margarine	#10 Can	8945-00-222-0567	MIL-M-10958
Macaroni, Dry	9.0	8920-00-125-9440	FED-N-M-0051 (Army - GL)
Milk, Nonfat, Dry	4.0	8910-2500-151-6465	MIL-M-0035052 (GL)
Molasses	#2 1/2 Can	8925-00-125-9454	FED-JJJ-M-576
Mustard, Prepared	1 Gal.	8950-00-127-8024	FED-EE-M-821
Neodles, Dry	5.0	8920-00-126-3388	FED-N-N-591
a) Lasagna	1.0	8920-00-782-2129	FED-N-M-0051 (Army - GL)
Salad Oil, Vegetable	1 Gal.	8945-00-616-0081	FED-JJJ-S-0030 (Army - GL)
Shortening	50.0	8945-00-616-0091	FED-EE-S-0033 (Army - GL)
Soy Sauce	16 oz.	8950-00-935-3254	FED-EE-S-610
Soup and Gravy Base			
a) Beef	8 oz.	8935-00-753-6423	MIL-S-43690
b) Chicken	8 oz.	8935-00-753-6424	MIL-S-43690
Spaghetti, Dry	10.0	8920-00-125-9441	FED-N-M-0051 (Army - GL)

# RAW MATERIAL SPECIFICATIONS

## DAIRY, EGG AND CONDIMENTES.(CONT)

<u>Name</u>	<u>Largest Quantity</u>	<u>Federal Stock Number</u>	<u>Specification Number</u>
Sugar, Brown	2.5	8925-00-566-7506	FED-JJJ-S-00791 (Army - GL)
Sugar, Granulated	100.0	8925-00-127-3074	FED-JJJ-S-00791 (Army - GL)
Spices, Ground and Whole			
a) Allspice, Ground	1 to 2 oz.	8950-00-170-9562	FED-EE-S-631
b) Basil, Sweet	1 to 2 oz.	8950-00-404-6066	FED-EE-S-631
c) Bay Leaves	1 to 2 oz.	8950-00-170-9561	FED-EE-S-631
d) Celery, Salt	3 to 4 oz.	8950-00-127-8044	MIL-C-10023
e) Chili Powder	1.0	8950-00-753-2962	MIL-C-3394
f) Cumin, Ground	3 to 4 oz.	8950-00-119-4356	FED-EE-S-631]
g) Ginger, Ground	3 to 4 oz.	8950-00-616-5484	FED-EE-S-631
h) MSG	4 oz.	8950-00-263-2786	FED-EE-M-591
i) Mustard, Dry	3 to 4 oz.	8950-00-170-9567	FED-EE-S-631
j) Nutmeg	1 to 2 oz.	8950-00-127-8047	FED-EE-S-631
k) Oregano	1 to 2 oz.	8950-00-582-1402	FED-EE-S-631
l) Paprika	3 to 4 oz.	8950-00-170-9563	FED-EE-S-631
m) Pepper, Black	1.0	8950-00-127-8067	FED-EE-S-631
n) Pepper, Cayenne	1 to 2 oz.	8950-00-170-9565	FED-EE-S-631
o) Poultry Seasoning	3 to 4 oz.	8950-00-170-9558	FED-EE-P-600
p) Salt, Table	5.0	8950-00-262-8886	FED-SS-S-31
q) Thyme	1 to 2 oz.	8950-00-616-5483	FED-EE-S-631
Vinegar			
a) Cider	32 oz.	8950-00-221-0297	FED-Z-V-401
b) Wine, Red or White	32 oz.	8950-00-616-0213	FED-Z-V-401
Worcestershire Sauce	6 oz.	8950-00-082-6177	FED-EE-W-00600 (Army - GL)

# RAW MATERIAL SPECIFICATIONS - VEGETABLES

<u>Name</u>	<u>Largest Quantity</u>	<u>Federal Stock Number</u>	<u>Specification Number</u>
Beans, Red Kidney	#10 Can	8915-00-926-6793	FED-JJJ-B-00101 (Army - GL)
Bean Sprouts, Canned	#10 Can	8915-00-085-1642	MIL-B-35012
Cabbage, Fresh			
Domestic	45.0	8915-00-616-0194	FED-HHH-C-26
Carrots, Fresh	48.0	8915-00-127-8019	FED-HHH-C-81
Celery, Fresh	55.0	8915-00-252-3783	FED-HHH-C-00191
Egg Plant, Fresh	30.0	8915-00-127-7983	FED-HHH-E-236
Garlic, Dehydrated	2 oz.	8915-00-616-5465	MIL-G-35008
Juice, Lemon, Instant	2 1/2 Qt.	8915-00-124-1950	MIL-J-43430
Juice, Pineapple, Canned	#3 Cyl.	8915-00-634-2439	FED-Z-P-356
Juice, Tomato, Canned	#3 Cyl.	8915-00-255-0523	FED-JJJ-J-798
Mushrooms, Canned Dry Wt.	39.0	8915-00-935-6629	FED-JJJ-M-851
Onions, Dehydrated			
a) Chopped	#10 Can	8915-00-128-1179	FED-JJJ-O-533
b) Powder	2.5 Gms	8915-00-132-6347	FED-JJJ-O-533
c) Sliced	#10 Can	8915-00-128-1171	FED-JJJ-O-533
Parsley			
Dehydrated Flakes	2.0	8915-00-975-0530	MIL-P-35090
Peas			
Frozen	2 to 5.0	8915-00-127-8021	FED-HHH-P-160
Peppers, Sweet			
a) Fresh	30.0	8915-00-127-8006	FED-HHH-P-246
b) Green, sliced, frozen	2 to 5.0	8915-00-582-4073	FED-HHH-P-250
Pimentos, Canned	#2 1/2 Can	8915-00-935-6371	FED-JJJ-P-400
Pineapple, Canned, Chunks	#10 Can	8915-00-170-5127	FED-Z-P-351
Potatoes, White			
a) Fresh	100.0	8915-00-616-0220	FED-HHH-P-622
b) Instant	#10 Can	8915-00-164-6876	FED-JJJ-P-630
Rice, Parboiled	50.0	8920-00-263-6425	FED-N-R-351
Sauerkraut, Canned	#10 Can	8915-00-957-9558	FED-JJJ-S-71
Tomatoes, Canned			
a) Whole	#10 Can	8915-00-582-4060	FED-JJJ-T-571
Tomato Paste	#2 1/2 Can	8915-00-127-9303	FED-JJJ-T-00579
Potatoes, French Fried,	5 lb. Box	8915-00-782-3508	FED-JJJ-P-1429
Frozen			
Potatoes, Sweet, Canned	#2 1/2 Can	8915-00-127-8892	FED-JJJ-P-111
Vegetables, Mixed,	5 lb Pkg.	8915-00-935-6620	FED-HHH-V-200
Frozen			
Peas and Carrots	5 lb. Pkg.	8915-00-143-0997	FED-HHH-P-166
Green Beans, Frozen	5 lb. Pkg.	8915-00-128-1176	FED-HHH-B-136

RAW MATERIAL SPECIFICATION - VEGETABLES (cont'd)

<u>NAME</u>	<u>LARGEST QUANTITY</u>	<u>FEDERAL STOCK NUMBER</u>	<u>SPECIFICATION NUMBER</u>
Corn, Whole Grain, Frozen	5 lb. Pkg.	8915-00-127-8018	FED-HHH-C-586
Beans, Lima, Frozen	5 lb. Pkg.	8915-00-127-7984	FED-HHH-B-145
Succotash, Frozen	5 lb. Pkg.	8915-00-143-0983	FED-HHH-S-782
Black-eyed Peas	No. 300 Can	8915-00-616-0214	FED-JJJ-P-160

# PRODUCTION GUIDE INDEX

## MEAT ENTREES

<u>Entree</u>	<u>Recipe No.</u>	<u>Page</u>
<u>Beef Boneless Diced</u>		
Baked Beef and Noodles	L-17	3
Barbecued Beef Cubes	L-18	4
Beef Pot Pie	L-21	5
Beef Stew	L-22	7
<u>Beef Boneless Ground</u>		
Baked Lasagna	L-25	8
Barbecued Beef Patties	L-31	11
Chili Con Carne with Beans	L-28	12
Chili Con Carne without Beans	L-28	13
Chili Macaroni	L-28-1	14
Egg Plant Parmesan	—	15
Meat Loaf and Brown Gravy	L-35	17
Salisbury Steak with Brown Gravy	L-37	19
Salisbury Steak with Tomato Gravy	L-37	20
Spaghetti with Meat Balls	L-39	21
Spaghetti with Meat Sauce	L-38	23
Swedish Meat Balls	L-41	24
<u>Beef Boneless Roasts</u>		
Hot Roast Beef with Gravy	L-9	25
<u>Misc. Beef Items</u>		
Chicken Fried Steaks	L-12	26
Corned Beef Hash	L-42	27
Swiss Steak with Brown Gravy	L-16	28
Swiss Steak with Tomato Sauce	L-16	30
<u>Frankfurters</u>		
Baked Frankfurters with Sauerkraut	L-60	32
Barbecued Frankfurters	L-61	33
<u>Fish</u>		
Baked Fish with Cheese Sauce	L-106	34
Baked Tuna and Noodles	L-124	36
Salmon Cakes	L-114	38



MEAT ENTREES (cont'd)

<u>Entree</u>	<u>Recipe No.</u>	<u>Page</u>
<u>Pork, Diced, Boneless</u>		
Pork Chop Suey	L-80	39
Sweet and Sour Pork	L-82	40
<u>Pork Loin, Boneless</u>		
Barbecued Pork Loin	L-79	41
Sliced Pork with Gravy	L-81-1	42
<u>Pork Slices</u>		
Baked Pork Slices with Gravy	L-83	43
Breaded Pork Slices	L-86	44
<u>Pork Cured</u>		
Baked Ham with Cherry Sauce	L-65-2	45
Grilled Ham with Pineapple Sauce	L-65-2	46
<u>Pork Ribs</u>		
Barbecued Pork Spareribs	L-92	47
Braised Spareribs with Sauerkraut	L-93	48
<u>Poultry, Chicken</u>		
Barbecued Chicken	L-128	49
Chicken Pot Pie	L-132	50
Chicken Cacciatore	L-130	52
Country Style Chicken	L-135	53
Oven Fried Chicken	L-138	55
<u>Poultry, Turkey</u>		
Hot Turkey Sandwich	L-143-3	56
<u>Veal</u>		
Veal Loaf with Brown Gravy	L-35	57

# PRODUCTION GUIDE INDEX

## VEGETABLE ENTREES

<u>Entree</u>	<u>Recipe No.</u>	<u>Page</u>
Mashed Potatoes	Q-57	59
O'Brien Potatoes	Q-49	60
Glazed Sweet Potatoes	Q-67-(2)	61
Potatoes Au Gratin	Q-51	62
French Fried Potatoes	Q-45	64
Mashed Sweet Potatoes	Q-69	65
Buttered Mixed Vegetables	Q-G-3	66
Buttered Peas	Q-G-3	67
Buttered Peas & Carrots	Q-G-3	68
Buttered Green Beans	Q-G-3	69
Buttered White Grain Corn	Q-G-3	70
Buttered Lima Beans	Q-G-3	71
Buttered Succotash	Q-G-3	72
Baked Macaroni & Cheese	F-1 (2)	73
Boston Baked Beans	Q-3	74
Steamed Rice	E-5	75
Simmered Dry Beans	Q-5	76

# PRODUCTION GUIDE INDEX

## DESSERTS

<u>DESSERT</u>	<u>PAGE</u>
<u>Brownies</u>	
Brownies, Chocolate	77
<u>Cake</u>	
Devil's Food with Butter Cream Frosting	78
Pineapple Upside Down Cake	79
<u>Coffee Cake</u>	
Apple Coffee Cake	80
French Quick Coffee Cake	82
<u>Cookies</u>	
Chocolate Chip Cookies	84
Oatmeal Cookies	85
<u>Danish Pastry</u>	
Cherry	86
<u>Pie</u>	
Cherry	89
<u>Rolls</u>	
Cinnamon Pecan	91

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER FEL - 52	2. GOVT ACCESSION NO. AD-A099678	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) PRODUCTION GUIDES FOR MEAT AND VEGETABLE ENTREES AND DESSERTS DEVELOPED FOR USE IN THE FROZEN FOIL PACK FEEDING SYSTEM F.E. WARREN AIR FORCE BASE		5. TYPE OF REPORT & PERIOD COVERED
7. AUTHOR(s) Abdul R. Rahman Richard Helmer Nancy Kelley Hilton Schlup Glenn Schafer		6. PERFORMING ORG. REPORT NUMBER FEL - 52
9. PERFORMING ORGANIZATION NAME AND ADDRESS Food Technology Division Food Engineering Laboratory US Army Natick Research and Development Command		8. CONTRACT OR GRANT NUMBER(s)
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Natick Research and Development Command Natick, MA 01760		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS O&MA 728012.19
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		12. REPORT DATE February 1976
		13. NUMBER OF PAGES 105
		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)  Approved for public release; distribution unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) GUIDES FROZEN FOOD PACKAGING MATERIALS FOILS PRODUCTION FROZEN FOODS FOILS (MATERIALS) FEEDING MEAT PACKAGING FEEDING SYSTEM VEGETABLES PREPARATION		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Production guides are given for meat and vegetable entrees, as well as desserts. The guides are designed for use in the Frozen Foil Pack Meal Feeding System at F.E. Warren Air Force Base. Procedures are described for the preparation of 100 portions of each of the designated items. Changes in formulation and evaluation of finished products are the result of extensive work at NRDC. The objective was to make it possible to use institutional type facilities. It is recommended that production procedures, especially critical control points as well as reheating procedures, be followed closely in order to obtain a safe (over)		

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

Block 20 (cont'd)  
and high quality product.

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)